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ABSTRACTS

FIBERS A

NATURAL FIBERS A 1

EARLY 1957 RIO GRANDE COTTON SHOWS GOOD QUALITIES. F. L. Gerdes. Textile World 107: 109, 202 (Nov. 1957). (3466)

1957 cotton in the Rio Grande Valley shows a tendency toward higher yarn strength, better appearance, and higher upper-half mean length than 1956 cotton grown in the same area. Some of this improvement is credited to better ginning methods. Table.

SISAL FROM SUCKER LEAVES. J. G. Thieme. Textile & Cordage Quart. 7, No. 3: 155-159 (1957). (3467)

Results of a study on the utilization of sisal sucker leaves (now wasted) for fiber production indicate that a good quality tow from suckers is possible by crushing the leaves, retting, and washing. This sucker tow is distinctly finer and more regular than ordinary flume tow, and could be recognized as a special raw material for spinners if offered in sufficient quantities.

THEORY OF FIBER EXTRACTION. CHAPTER 6. PRINCIPLES OF FIBER EXTRACTION (continued). J. G. Thieme. Textile & Cordage Quart. 7, No. 3: 133-136 (1957). (3468)

Defoliation, deseeding, ribboning, softening, decortication, purification, and grading of fibers are discussed, and the principal stages of fiber extraction are tabulated.

FORTY YEARS PROGRESS IN SOVIET FLAX PRODUCTION. M. Poperekov. Textile & Cordage Quart. 7, No. 3: 140-142 (1957). (3469)

GLOSSARY OF FLAX, HEMP, AND JUTE THREADS AND TWINES. PART 2. T. H. Reid. Textile & Cordage Quart. 7, No. 3: 143-146 (1957). (3470)

MAN-MADE FIBERS A 2

INDUSTRIAL USES OF COURLENE. J. Boyd. Textiles in Industry 2: 65-67 (July/Aug. 1957). (3471)

The physical and chemical properties of Courlene are tabulated and its application for protective clothing, filtration, rope, and electrical insulation are discussed.

ACRILAN. W. A. Norman (Chemstrand Corp.). Can. Textile J. 73: 54-55 (Nov. 30, 1956); 67-71 (Feb. 8, 1957); 76-80 (Apr. 5, 1957); 67-68 (May 3, 1957). (3472)

Part 1. Physical properties. Part 2. Manufacture on the cotton system. Part 3. Manufacture on the woolen and worsted systems. Part 4. Machine knitting.

SYNTHETIC FIBER REINFORCED PLASTICS. Textiles in Industry 2: 72 (July/Aug. 1957). (3473)

Some of the contributions made by needled batts of nylon, Orlon, and Dacron to reinforced plastics are examined. Results of tests on corrosion and acid resistance and moisture absorption on plastics containing approximately 65% polyester resins and 35% fiber are reported.

TERYLENE ON THE WORSTED SYSTEM. Man-Made Textiles 34: 52, 54 (Sept. 1957); 53-54 (Oct. 1957); 45-46 (Nov. 1957). (3474)

Part 1. Fiber properties and their influence on processing conditions. Part 2. Treatment of dyed slubbing, blending Terylene/wool, and details of drafting. Part 3. Recommendations on twist selection, doubling and winding, and processing on the Continental worsted system. Tables. Graphs.

TERYLENE MARINE AND INDUSTRIAL ROPES. Textiles in Industry 2: 68-70 (July/Aug. 1957). (3475)

Terylene rope has complete resistance to rot, high resistance to abrasion, high strength and low moisture absorption, and low extensibility at normal working loads, coupled with a greater ability to absorb shock loads than the natural fiber ropes. Details of the properties and some uses of industrial and marine Terylene ropes are given. Photographs.

FIBERS FROM COPOLYMERS AND BLENDED POLYMERS. PART 1. RANDOM COPOLYMERS. J. W. S. Hearle. Skinner's Silk & Rayon Record 31: 1198-1202 (Nov. 1957). (3476)

Among the best known of the copolymer fibers are the group of vinyl and acrylic fibers which are polymerized from various combinations of vinyl chloride, vinyl acetate, acrylonitrile, vinylidene chloride, and similar compounds. The manufacture, properties, and structure of these copolymers, as well as other commercially available random copolymers, are described. Many trade names are included. Tables. Diagrams. Graphs. 6 references.

NEW FIBER SHAPES. Institut für Textiltechnologie der Chemiefasern, Rudolstadt. Modern Textiles Mag. 38: 70, 86 (Nov. 1957). (3477)

Methods of modifying cross-sections, outer-surfaces and inner structures of melt-spun polyamides and polyesters to produce "profile fibers" with new yarn characteristics are described. Photomicrographs of the new cross sections are included.

OUTLOOK AND POTENTIAL MARKETS FOR SYNTHETIC FIBERS. F. J. Soday (Chemstrand Corp.). Can. Textile J. 74: 54-58 (Aug. 9, 1957); 57-62 (Sept. 6, 1957). (3478)

The impact of new developments in the areas of raw materials (isotactic polymers and vinyl cyanide and tetrafluoroethylene polymers), new polymerization processes (isotactic, graft, and radiation polymerization), spinning processes (emulsion sintering and spray and draw techniques), and yarn and spinning techniques (textured yarns, bulked yarns, and direct spinning) on the future potential of synthetic fibers is examined.

YARN PRODUCTION B

OPENING, PICKING, FIBER PREPARATION B 1

EFFECT OF OPENING ROOM MACHINES ON COTTON: A PRELIMINARY STUDY. Srinagabhushana, B. Basavaraj and S. Srikantiah. Textile Dig. 17, No. 3: 135-145 (1956). Through BCIRA 37: 247 (1957). (3479)

Cotton was processed on opening room machinery comprising six major cleaning points, and by means of additional passages up to ten cleanings were given. The effects of the number of cleanings on such properties as trash content, nep count, mechanical damage, degree of opening, and stringiness or curliness were studied. The results show that opening is not improved by passing cotton through more than five or six cleaning points, although cleaning may be slightly improved. Little mechanical damage is suffered even up to ten passages, but beyond five the form of the cotton (amount of curling and entangling) is significantly affected in an adverse manner. Nep count increases with additional treatments.

AUTOMATIC SCALE PAN FEED REGULATOR. B. Kaegi. Z. ges. Textil-Ind. 59, No. 8: 281-284 (1957). In German. Through BCIRA 37: 347 (1957). (3480)

In the Schupp regulator (Ger. Pats. 712,838 and 927,193) each deviation from the standard weight is detected by the scale pan feed regulator to cause a corresponding change in the time interval of the pushing bar, and the volume of the feed space. The regulator can be fitted in any automatic hopper feeder construction with weighing apparatus to ensure high yarn regularity during spinning.

CARDING AND COMBING B 2

ECONOMIC ASPECTS OF THE INTRODUCTION OF ALL-STEEL CLOTHING IN COTTON SPINNING. F. Kollert. Deutsche Textiltech. 7, Nos. 1/2: 31-37 (1957). In German. Through BCIRA 37: 347 (1957). (3481)

MODERN CARDING MACHINES FOR THE WADDING AND COTTON WOOL INDUSTRIES. W. Neumann. Textil-Praxis (English ed.) No. 3: 97-100 (Sept. 1957). (3482)

Brief survey of the possible combinations of attachments for carding machines equipped with hoppers and taker-ins.

FLAT GRINDING ON PLATT'S COTTON CARD. J. K. Clegg. Textile Recorder 75: 65-66 (Nov. 1957). (3483)

The action of the Platt flat grinding motion is explained. Setting instructions and details of settings for the usual 1-3/8 in. flats are given. Diagram.

ALL-STEEL CLOTHING IN THREE- AND FOUR-ROLLER SPINNING. K. Buschmann. Spinner u. Weber 75, No. 8: 373-387 (1957). In German. Through BCIRA 37: 379 (1957). (3484)

Card stripping installations and methods are reviewed, with special reference to the use of all-steel clothing (Platt Frères, Roubais) and its advantages in processing man-made fibers. Savings of material amount to 0.5-1%, and productivity is increased by 4-7%, without adverse effect on the quality of the product.

EFFECT OF THE TAPE CONDENSER ON YARN REGULARITY. A. Hellgartner. Spinner u. Weber 75, No. 8: 387-388 (1957). In German. Through BCIRA 37: 380 (1957). (3485)

The factors causing yarn irregularity when using multiple tape condensers are discussed and directions are given for the elimination of faults.

OPTIMUM DRAFT RANGES ON A THREE CARD SET. W. Morenz. Deutsche Textiltech. 7, No. 1/2: 49-55 (1957). In German. Through BCIRA 37: 347 (1957). (3486)

Experiments are described, in which the productivity of the card was increased by working at optimum velocities and drafting ranges. For cotton/rayon staple blends, the following reference values are given: 130 rev/min = 520 m/min and 70-95-fold draft on the first card; 140 rev/min = 560 m/min and 20-30-fold draft on the second card; 150 rev/min = 600 m/min and 50-80-fold draft on the third card.

MAJOR PROBLEMS IN THE PROCESSING OF WOOL: NEP FORMATION IN WORSTED CARDING. P. P. Townend. Textil-Praxis (English ed.) No. 1: 1-2 (Mar. 1957). (3487)

To discover the factors responsible for the formation of neps in worsted carding, experiments were carried out on a Bradford type botany card having four lickers and two swifts using 64s merino wool. They are classified under two headings: those concerned with the state of the wool fed to the card, and those concerned with mechanical alterations to the machine. Tables.

MODERN COMBERS AND COMBING PRACTICE. PART 3. SETTING AND WORKING THE PB25 SCHLUMBERGER COMBER (continued). F. Gill. Textile & Cordage Quart. 7, No. 3: 160-165 (1957). (3488)

CUT CARD WASTE 80%. Textile Ind. 121: 122-124 (Nov. 1957). (3489)

Mill tests on the use of the Turbaire cleaner as a replacement for the licker-in cover are reported. The new device consists of a series of baffles which break up the boundary layer of air and control it to give more efficient cleaning. Tables.

EFFECT OF SHORT FIBER PERCENTAGE ON REGULARITY AND CLEANLINESS OF COMBED SLIVERS AND YARNS FROM RAYON STAPLE FIBERS. G. Nitschke. Deutsche Textiltech. 7, No. 1/2: 42-48 (1957). In German. Through BCIRA 37: 347 (1957). (3490)

The regularity and cleanliness of slivers and yarns are not affected by the percentage of the short-fiber component (up to 40 mm), but depend essentially upon the mean fiber length and the effective fiber-length distribution.

DRAWING AND ROVING B 3

DEVELOPMENT OF A DRAFTING FORCE MEASURING DEVICE. F. Maag. Melliand Textilber. 38, No. 4: 367-369 (1957). In German. Through BCIRA 37: 380 (1957). (3491)

Possibilities of measuring the drafting force are reviewed, with special reference to preliminary tests and methods for evaluating the results by using the Fielden-Walker Evenness Recorder.

MODERN DRAFTING SYSTEMS ON THE COTTON DRAW FRAME. G. Porsche. Textil-Praxis (English ed.) No. 3: 109-111 (Sept. 1957). (3492)

The Platt Bros. drawing frame with two lines of rollers, the 3-over-4 drawing frame, and the 4-over-5 drawing frame are described as examples of improved systems. Diagrams.

IMPROVING DRAWING SLIVER UNIFORMITY. J. R. Corley and D. M. Sandila (Southern Regional Res. Lab.). Textile Ind. 121: 129-135 (Nov. 1957). (3493)

Results of a study on the effect on the uniformity of drawing sliver and roving and on yarn properties of doubling, and tension draft in the middle drafting zone, coupled with proportionment of draft between drafting zones and to a limited extent roll settings and roll weights at the drawing processes are reported. The following conclusions are drawn: in one-process drawing (1) if slivers fed and total draft are increased, within-yard variation increases, yard-to-yard variation decreases; (2) sliver uniformity is improved if middle drafting zone rolls are set closer together than customary; for a total draft of 6.00, rear zone drafts of 1.56 to 2.00 give the most uniform sliver; and heavy roll weights improve sliver uniformity. Tables. Graphs. 23 references.

SPINNING, WINDING, TWISTING B 4

DOUBLE ENDS IN RING SPINNING. I. J. Abraham. Indian Textile J. 67: 742-744 (Sept. 1957). (3494)

The factors responsible for double ends are pinpointed, and methods for avoiding this defect are discussed.

PROBLEMS IN CAN SPINNING OF COTTON. K. Bettermann. Deutsche Textiltech. 7, No. 1/2: 37-42 (1957). In German. Through BCIRA 37: 347 (1957). (3495)

The development of centrifugal spinning is reviewed and its advantages and limitations are discussed.

REVOLUTION IN WORSTED SPINNING. V. Saxl (Stellamcor, Inc.). Textile World 107: 102-108 (Nov. 1957). (3496)

This article examines the changes that have taken place in the American, Bradford, and French systems for worsted spinning, and the economic factors influencing the number of spindles in each system at the present time. Future trends are also discussed. Graph. Tables.

FIBER RECOVERY AND FIBER SPINNING PROPERTIES. W. P. Cofield. Textile Ind. 121: 155, 189 (Nov. 1957). (3497)

In studying the cause of excessive breakage of rayon fibers during spinning, it was found that there were approximately 60% more ends down per 1,000 spindle hours with rayon having a high recovery index than there were with rayon having a low recovery index. These results led to the theory that fibers having a high recovery tend to spring out in all directions during processing, thus causing some to be caught in nicks and rough places along the path of travel.

SPINNING SLUB YARN WITH SPECIAL ATTACHMENTS. G. B. Peeler. Textile World 107: 147, 218-220 (Nov. 1957). (3498)

Frame conversion, attachments and operation, and operator training are discussed. Diagram.

"COMB-SPINNING" PROCESS. J. Meimberg. Textil-Praxis (English ed.) No. 2: 49-53 (June 1957). (3499)

On the "comb spinning" system each individual fiber is combed out of the sliver with a rotating comb, putting in twist at the same time; the finished thread passes through a reciprocating guide and is wound directly on to a crosswound bobbin. Details of the process and machine are given. Photographs. Diagrams.

RING FRAME FOR SLIVER SPINNING. Zinser Textilmaschinen GmbH. Textile Recorder 75: 84-86 (Nov. 1957). (3500)

The Zinser can fed ring frame for spinning coarse and medium count yarns directly from sliver is a single-sided machine incorporating positively driven spindles and five-roller drafting. Features of the machine are described. Photographs.

EXPERIENCES WITH DRAFTING MECHANISMS. G. Porsche. Spinner u. Weber 75, No. 8: 370-372 (1957). In German. Through BCIRA 37: 380 (1957). (3501)

The choice and properties of the roving and adjustment of the drafting mechanism on ring-spinning machines are discussed, with reference to the preliminary draft, the total draft, and the adjustment of the distance between top and bottom aprons.

IMPROVED CLEARER ON THE DRAWING FRAME OF THE RING SPINNING MACHINE. E. Weber. Textil-Praxis (English ed.) No. 1: 5-7 (Mar. 1957). See TTD 14: 1561 (1957). (3502)

STEEL-ROLL APRON REPLACEMENT SCHEDULE. J. Allan. Textile World 107: 144, 196-198 (Nov. 1957). (3503)

The comparative production loss in replacing aprons as they are needed versus replacing them on schedule is examined. Table. Diagrams.

NEEDLE BEARING FOR DRAFTING ROLLERS. W. Günther. Textil-Praxis (English Ed.) No. 3: 101-104 (Sept. 1957). (3504)

Advantages of needle bearings are cited, and their application to worsted and cotton drafting systems is described and illustrated. Diagrams.

BIKOMAT SEMI-AUTOMATIC PRECISION CROSS WINDER FOR DIAMOND WINDING. Georg Sahm Maschinenfabrik. Textil-Praxis (English ed.) No. 2: 59-61 (June 1957). (3505)

The Bikomat winds pineapple cones and cylindrical packages with tapered bases. The same machine fitted with a traverse frame for straight-end precision coning and cheesing is available under the name Präkomat. The two most notable features of the machine are the individual motor drive to each spindle and the new traversing mechanism. Photographs.

CARPET YARN TWISTING. Prince-Smith & Stells Ltd. Man-Made Textiles 34: 52 (Nov. 1957). (3506)

The Axminster ring twisting frame is now being used for the twisting of yarn for tufted carpet manufacture. The main feature of the frame is the patent twin-clutch roller-bearing spindle which works in conjunction with the roller stop motion to ensure that both rollers and spindle stop and start immediately on the breaking or running out of any single thread thus eliminating bunch knots. Twisting can take place direct from the spinning package. Other aspects of the frame are described. Photographs.

RING SPINNING FRAME TUBE DETACHING MACHINE. Emil Adolff. Textil-Praxis (English ed.) No. 1: 3 (Mar. 1957). (3507)

Machine for automatically detaching bobbins from the rod form in which they are supplied. Diagram.

LATEST DEVELOPMENTS IN STAPLE SPINNING. G. Waggett. Textile & Cordage Quart. 7, No. 3: 148-151, 168 (1957). (3508)

Machinery developments for orthodox and non-orthodox (tow to sliver and tow to yarn) spinning methods are reviewed.

SAGA OF THE RING TRAVELER. Indian Textile J. 67: 736-738 (Sept. 1957). (3509)

The history of the development of the traveler and the steps in its manufacture are briefly discussed.

SKF SPINNTESTER. K-R. Bühl and W. Kraft. Textil-Praxis (English ed.) No. 2: 88-92 (June 1957). (3510)

By means of the Spinntester it is possible to make a series of tests and then to transfer the most favorable adjustment of spindle speeds, total draft, preliminary draft, and twist to the production machines. Some technical details of the machine are given. Diagrams.

SPINNING FRAME CLEANING. Textile Age 21: 14 (Nov. 1957). (3511)

The four items determining a mill's cleaning requirements (the type of goods produced; grade, staple and crop cotton used; length of drafts; and the temperature and humidity system) are discussed, and a cleaning schedule for conventionally equipped mills, without filtered air wash or air conditioning, is included.

CAUSES OF ABNORMAL VARIATION IN RING FRAME DOFFING WEIGHT. G. K. Nayar. Indian Textile J. 67: 739-741, 757 (Sept. 1957). (3512)

Variations in doffing weight as affected by high breakage rate, too many spindle stoppages, not piecing breakages in time, not creeling in time, doffing early or late, variation in count, and inadequate lighting are discussed. Tables.

FLEXIBILITY AND CENTERING OF THE SPINDLE. W. Stahlecker. Textil-Praxis (English ed.) No. 2: 54-58 (June 1957). (3513)

The effects of the roller bearing on the spindle design are described, reasons for the use of strong blades with ample guided length are given, the influence of a flexible spindle bearing on the spinning process is examined, and the Stahlecker WST center spindle is described.

YARNS B 5

INDEX TO THE BULKED YARN TRADE. Skinner's Silk & Rayon Record 31: 1192-1196 (Nov. 1957). (3514)

Trade names, structure, manufacturers, and applications are included in this listing.

MIXED YARNS FROM WOOL AND CHEMICAL FIBERS. PART 6. WEATHERING OF BLENDS FROM WOOL AND SYNTHETIC FIBERS (PERLON, DRALON, AND DIOLEN). H. Zahn and E. Kratzsch. Melliand Textilber. 38, No. 4: 423-428 (1957). In German. Through BCIRA 37: 400 (1957). (3515)

The behavior of these blends on exposure to various weather conditions was examined and the tensile strength and elongation at break after 4, 8, 12 and 16 weeks' exposure are tabulated and represented in graphs for varying proportions of the individual blend components.

HANDBOOK OF TWISTING. N. A. Truslow. Clark Publishing Co., 218 W. Morehead St., Charlotte 2, N.C. 1957. 159 p. $5.00. (3516)

Testing twist, twisting devices, angle of twist, effect of twist on strength, effect of twist on dimensional changes, effect of twist on product life, and effect of twist on fabric appearance. Bibliography.

FABRIC PRODUCTION C

WARPING, SLASHING, YARN PREPARATION C 1

PRACTICAL EXPERIENCES WITH MULTIPLE-MOTOR DRIVES FOR SIZING MACHINES. A. Gasser. Textil-Praxis (English ed.) No. 3: 115-118 (Sept. 1957). (3517)

The new Rüti sizing machine with a single drive for the squeezing rollers, take-off rollers behind the dryer, and the feeding roller before the beaming mechanism are described. Shafts throughout the whole length of the machine and differential gear are no longer used; the former beaming-friction has been replaced by an electronic beaming device, which by alteration of the diameter from empty to full warp-beam, ensures constant beaming tension, fully independent of the speed of the machine and the amount of the tension. Details of the driving mechanism are given. Photographs.

WARP SIZING. PART 19. P. V. Seydel. Textile Ind. 121: 136-146 (Nov. 1957). (3518)

Discussion of slasher drag rolls, drives, press rolls, warp lubricators, static eliminators, and beam storage racks. Photographs. Diagrams.

DRAWING-IN MACHINE. P. Steenberg-Pedersen. Tidsskr. Textiltek. 15, No. 4: 69-71 (1957). In Danish. Through BCIRA 37: 383 (1957). (3519)

Description is given of the new Titan Selector, facilitating drawing-in for weaving and claiming to effect savings of up to 35%.

MODERN WEAVING MACHINERY. K. Gründig. Deutsche Textiltech 7, Nos. 1/2: 76-88 (1957). In German. Through BCIRA 37: 350 (1957). (3520)

The development in winding, warping, and weaving machinery during the past 15-20 years is reviewed, with descriptions and illustrations of machines and reference to their producers.

HIGH-SPEED CONE AND CHEESE WINDER. Ateliers de Construction Gilbos SPRL. Textile Wkly. 57: 1183, 1197 (Oct. 25, 1957). (3521)

The Gilbos RC model is suitable for winding cones and cheeses up to 4° 30', or alternatively, to wind cones with wooden centers up to 5° 57' for high speed warping or cones with paper centers up to 9° 15' for the hosiery trade. Package formation is based on the grooved drum principle, eliminating the traversing thread guides. Features of the machine are described. Photograph.

PREPARED EMULSIFIED SOFTENERS IN WARP SIZING. E. Mercer (Simon Megson Ltd). Textile Merc. 137: 693-694 (Oct. 25, 1957). (3522)

The importance of emulsified softeners in warp sizing is explained, and the advantages of a highly balanced consistent emulsified softener (Zymetex) over mutton or home melt tallow are summarized.

NEW METHODS FOR THE STRIPPING OF QUILLS. H. B. Hess. Textil-Praxis (English ed.) No. 3: 112-114 (Sept. 1957). See TTD 14: 2465 (1957). (3523)

WEAVING C 2

AUTOMATIC LOOMS. K. Weigel. Textil-Praxis (English ed.) No. 1: 11 (Mar. 1957). (3524)

The Lindauer Dornier GmbH new high speed looms (with a reed space of 120 cm and a speed of 260-300 rpm) include a variable speed drive and a Stäubli dobby mechanism for positive shed formation. Diagrams.

AUGUST ENGELS GmbH AUTOMATIC LOOM RWMO. K. Weigel. Textil-Praxis (English ed.) No. 1: 8-10 (Mar. 1957). (3525)

Outstanding features of the loom, designed for light to medium-weight cottons, include a low center of gravity, lack of superstructure, steel lay, parallel picking, and automatic warp delivery. Photographs. Diagram.

TUMACK RAPIER LOOM. James Mackie & Son Ltd. Skinner's Silk & Rayon Record 31: 1182-1184 (Nov. 1957). (3526)

Working at a reported speed of 380 picks per minute across a reed width of 64 inches, to make a cloth about 128 inches wide, the new loom is said to be giving a weaving efficiency at present of upwards of 90%. The shed is reported to be about 1-1/2 inches deep. Weft is inserted by two spears which each insert two weft threads at a time. Features and operation of the loom are described. Diagrams.

TWO COLOR PICK-AND-PICK AUTOMATIC LOOM. K. Weigel. Textil-Praxis (English ed.) No. 1: 23-25 (Mar. 1957). (3527)

Features of the Schönherr pick-and-pick loom are described. Diagrams.

SELVAGE MOTION FOR KOVO SHUTTLELESS JET LOOMS. Textile Recorder 75: 69 (Nov. 1957). (3528)

Features of new attachment which produces a special binding weave at the selvage, each lengthwise row of which consists of three warp ends. Two or three of these rows are used at each selvage and the crossover of the twisting ends is effected over every other binding point of weft and warp end. Diagram.

ELECTRICAL CONTROL INSTALLATIONS ON LOOMS. W. Schirmeisen. Melliand Textilber. 38, No. 4: 390-392 (1957). In German. Through BCIRA 37: 384 (1957). (3529)

The development of the loom drive is described and the advantages of automatic control devices (e.g. piece counters, warp and weft stop motions with electric feelers, and various constructions of other loom controlling devices) are discussed.

SULZER WEAVING MACHINE. F. Geuting. Spinner u. Weber 75, No. 8: 391-394 (1957). In German. Through BCIRA 37: 384 (1957). (3530)

CZECHOSLOVAKIAN CIRCULAR LOOM FOR HOSE PIPES. L. Jirounek. Spinner u. Weber 75, No. 8: 395-396 (1957). In German. Through BCIRA 37: 384 (1957). (3531)

REVIEW OF GERMAN LOOM CONSTRUCTIONS. B. Hesse. Spinner u. Weber 75, No. 8: 396-397 (1957). In German. Through BCIRA 37: 384 (1957). (3532)

LOOMS FOR COLORED WEAVING. J. Deussen. Z. ges. Textil-Ind. 59, No. 8: 292-299 (1957). In German. Through BCIRA 37: 351 (1957). (3533)

Various models of the Astra weaving machine are described and their advantages enumerated.

NEUMANN GRIPPER SHUTTLE LOOMS. H. Mzyk. Deutsche Textiltech. 7, Nos. 1/2: 66-71 (1957). In German. Through BCIRA 37: 351 (1957). (3534)

The efficiency of various looms is compared and the mechanism and applicability of the Neumann loom are discussed, with reference to constructional details (gripper shuttle, warp beam brake, let-off motion, take-up motion, etc.).

IMPROVEMENTS ON DOBBIES AND REVOLVING BOX MOTIONS. E. Brandler. Deutsche Textiltech. 7, No. 3: 227-228 (1957). In German. Through BCIRA 37: 351 (1957). (3535)

The improvement on the dobby consists in the ring cam on the crank shaft being constructed of two parts so that the lay can be pushed back far enough before the ring cam commences to revolve and before a wrong dobby card is fed. The second improvement is a device preventing faults in checked fabrics caused by threads of shuttles remaining in the revolving box being drawn into the shed together with the running weft.

JIG-BUILT BLANKET LOOM. George Hattersley & Sons Ltd. Man-Made Textiles 34: 50-51 (Nov. 1957). (3536)

Features of a new series of fully automatic 4 x 1 box pirn-changing blanket looms are described. Photographs.

DISCUSSION ON FABRIC DEFECTS. Textil-Praxis (English ed.) No. 1: 19-23 (Mar. 1957). (3537)

Cotton decating blanket defects, slack ends in poplins, streakiness in raising, loose flock in cotton blankets, faulty selvages in ribbed velveteen, broken ends caused by low temperature, reed marks, defective operation of weft stop motions, temple case on Smith's barrel loom, shuttle box swells, and Perlon picking tappet and pickers are discussed.

DETERMINING PRODUCTIVITY IN THE WEAVING MILL. T. Mandt and G. Heinitz. Deutsche Textiltech. 7, No. 3: 205-208 (1957). In German. Through BCIRA 37: 375 (1957). (3538)

Principles and definition of production capacity are discussed and its determination is described. An example of capacity determination in weft winding is given.

INCREASE OF PICKING RATE IN WEAVING. H. Hollstein. Deutsche Textiltech. 7, Nos. 1/2: 72-76 (1957). In German. Through BCIRA 37: 352 (1957). (3539)

Various possibilities of increasing the rate of weft insertion are reviewed, and causes of loom stoppages are discussed. A formula is derived for determining the speed of the loom in dependence of the mean shuttle speed, the constant acceleration and retardation during the picking and braking of the shuttle in both shuttle boxes, the angle of the crank shaft, and the total path of the shuttle.

HOW CORRECT FILLING TENSION IS CONTROLLED AT THE SHUTTLE. W. C. Westbrook. Textile World 107: 122-123, 223-224 (Nov. 1957). (3540)

Suggestions on the selection and use of various tensioning materials, e.g., bristles, fur, nylon loops, are given. Photographs.

FILLING YARN INVENTORY CHART. M. Havinoviski. Textile Ind. 121: 118-120 (Nov. 1957). (3541)

Wall chart method for an up-to-the-minute record of types and colors of filling yarn in stock, needed, and on order is described and illustrated.

NUMBER OF REVOLUTIONS AND EFFICIENCY. W. Görlach. Deutsche Textiltech. 7, No. 3: 208-211 (1957). In German. Through BCIRA 37: 376 (1957). (3542)

The importance of effective speed of operation and effective output are discussed and examples for determining the efficiency in weaving mills are given. The use of graphs and tables is explained.

WEAVING FACE-TO-FACE CARPETS. B. O. Worcester. Textile Ind. 121: 125-128 (Nov. 1957). (3543)

The constructions possible on plain and jacquard double looms, as well as on the single jacquard, are discussed and illustrated. Diagrams.

SHUTTLE-SPRING PROBLEMS CAUSED BY LARGE PACKAGES. W. C. Westbrook. Textile World 107: 149 (Nov. 1957). (3544)

Inspection and maintenance procedures for shuttle springs to prevent broken picks, kinky filling, and filling bands when using large packages. Diagrams.

REINSHAGEN JACQUARD RIBBON LOOM. H. Rittinghaus. Textil-Praxis (English ed.) No. 2: 62-67 (June 1957). (3545)

The new loom is characterized by high side frames and a pendulum-like movement of the lay. Diagrams.

TERRY WEAVING. M. Ziegler and R. Birk. Textil-Praxis (English ed.) No. 1: 12-17 (Mar. 1957). (3546)

General directions for manufacturing terry fabrics, including jacquard terry, with reference to a number of special looms. Photographs. Diagrams.

NARROW FABRIC SHUTTLELESS LOOM. Bonas Bros. Ltd. Textile Wkly. 57: 1088-1090 (Oct. 18, 1957). (3547)

The Weavematic four-shaft model weaves zip-fastener tapes and similar fabrics, and the eight-shaft model produces more intricate fabrics, such as elastic webs. Two tapes are woven,one above the other, at a speed of 1,000 double picks per minute. The efficiency of the loom is over 90% and this high figure allows one operative to supervise between 30 and 40 looms, depending on the type of work. Features of the looms are described. Photographs.

KNITTING C 3

KNITTED FABRICS HAVE WOVEN CHARACTERISTICS. Fair-Tex Mills, Inc. Textile World 107: 110-111, 202-203 (Nov. 1957). (3548)

Brief description of the knitting and finishing procedures for producing knitted fabrics resembling such woven fabrics as ginghams, foulards, and corduroys. Photographs.

KNITTING OF INTARSIA FABRICS. J. B. Lancashire. Hosiery Trade J. 64: 66-70 (Nov. 1957). (3549)

As defined in this article, intarsia designs include not only geometrical and floral shapes developed in different colors but also horizontal, vertical, and diagonal stripes. Their production on circular knitting machines is described. Photographs.

USE OF METALLIC YARNS IN KNITGOODS. PART 1. W. E. Shinn. Knitter 21: 33-38, 65 (Nov. 1957). (3550)

The construction and physical characteristics of several types of metallic yarns and methods of utilizing them in knitted fabric are discussed. The experience upon which the study was based was obtained with Lurex, but the principles employed are applicable to other metallic yarns. Photographs.

VERGE PLATE SETTING ON FULL-FASHIONED HOSIERY MACHINES. J. C. Baumgardner (Lee Hosiery Mills, Inc.). Textile World 107: 151, 200 (Nov. 1957). (3551)

A method of gauging verge plates and keeping sinker play to a minimum by the use of a dial indicator mounted on a universal table is described. Photographs.

BOOTON HK TWIN-FEED CIRCULAR KNIT HOSIERY MACHINE. I. R. Thornton. Hosiery Trade J. 64: 88-90 (Nov. 1957). (3552)

Features of the machine are described. Photographs.

FABRICS C 4

MANUFACTURE OF ZIPPER TAPES WITH RIB SELVAGES. H. Rheda. Textil-Praxis (English ed.) No. 3: 118-121 (Sept. 1957). (3553)

Recommended yarn types for various weight zipper tapes, weaving details, and dyeing procedures are included. Diagrams.

THE SHIRT. Ciba Rev. 11: 2-29 (Sept. 1957). (3554)

Raw cotton into poplin shirt, by F. Staub, p. 2-6; Shirts and fashion, by R. Flury-von Büitzingslöwen, p. 7-10; Evolution of the shirt, p. 11-22; Shirt in folklore, p. 23-29. Photographs. 39 references.

HOW QUALITY PRINTERS' LAPPINGS ARE MADE. F. C. Huyck & Sons. Textile Ind. 121: 114-117 (Nov. 1957). (3555)

The most important characteristics of printers' lapping are described, and the steps in manufacture from selection of raw material to final testing are described. Diagram. Photographs.

COATED NYLON PROTECTIVE COVERINGS. Textiles in Industry 2: 71 (July/Aug. 1957). (3556)

The advantages and disadvantages of coated nylon are listed and its physical properties and uses are described. Neoprene and vinyl coatings are widely used, and a new elastometer, Hypalon chlorosulfonated polyethylene, is being tested as a coating.

SEAMLESS SURGICAL TUBING. J. & N. Phillips Ltd. Man-Made Textiles 34: 72 (Nov. 1957). (3557)

A technique for weaving seam-free tubes of 100% monofilament Courlene yarn on an orthodox ribbon loom is described. Tubes woven from the yarn possess many of the characteristics of the human artery. The yarn is tough, flexible, very hard wearing, and is chemically inert. The trellis-like structure of the woven tubing allows body tissues to form round the artery substitute as it would around a natural organ.

PLASTICS FOR THE BACKING OF TUFTED GOODS. Man-Made Textiles 34: 65 (Nov. 1957). (3558)

The plastic material mostly used for fabric backing is polyvinyl chloride (PVC). It can be made in the form of a latex, but it possesses the unique property of forming a paste without addition of water and in this form it has many advantages. The composition of these pastes and their application are described.

HOW FORD BUYS AUTO FABRICS. E. Zagiel. Modern Textiles Mag. 38: 81-85 (Nov. 1957). (3559)

The general requirements for automobile fabrics, as well as the specific requirements for seat covers, door panels, carpets, headlinings, convertible tops, and miscellaneous trim materials are covered.

LOSS FACTOR AND DIELECTRIC CONSTANT OF TEXTILE FABRICS AS A FUNCTION OF CLOTH HUMIDITY. W. Lück. Deutsche Textiltech. 7, No. 3: 229 (1957). In German. Through BCIRA 37: 367 (1957). (3560)

Relationships between humidity and dielectric properties of fabrics are discussed.

PATTERNING PRINCIPLES IN WEFT KNITTING: NON-PATTERNING USE OF KNIT-AND-MISS TECHNIQUE. J. Rab. Man-Made Textiles 34: 47 (Nov. 1957). (3561)

APPLICATIONS OF COURLENE MONOFILAMENTS. Man-Made Textiles 34: 73 (Nov. 1957). (3562)

Some conventional textile fabrics, competing with natural and man-made fibers in established fields, are described. Swatches.

HOW IRC NYLON BEHAVES IN CARPETS. T. G. Finzel, M. Romer and S. M Fok (Industrial Rayon Corp.). Modern Textiles Mag. 37: 33-34, 47 (Oct. 1956); 39-46 (Nov. 1956); 33-34 (Dec. 1956); 35-42, 54-56 (May 1957). (3563)

Part 1. Relative cost and appearance of various nylon/rayon blends. Part 2. Results of laboratory tests of crush, recovery, and matting characteristics of nylon/rayon blended carpets. Part 3. Crush, recovery, and matting characteristics of the nylon/rayon blended carpets as determined by actual floor tests. Part 4. Results of tests on wear, soiling, stain removal, and electrostatic behavior. Tables. Graphs. Photomicrographs. 16 references.

LOFTED ACETATE IN CARPETS. W. I. Langstaff, E. J. Nickerson and L. P. Hoskins (Eastman Chemical Products, Inc.). Modern Textiles Mag. 38: 35-36, 76-79 (Nov. 1957). (3564)

Results of the comparative tests discussed in this article demonstrate that the new lofted continuous filament Estron and Chromspun acetate carpet yarns offer the carpet trade a low cost yarn with crush resistance and resilience essentially equal to that of wool. Data on appearance after wear, soiling resistance, abrasion resistance, shedding and pilling, and insect and mildew resistance are included. Tables. Graphs.

LATEX BACKINGS IN THE CARPET INDUSTRY. A. J. Kelly. Textile Age 21: 56 (Nov. 1957). (3565)

Since in tufting the pile yarns are not an integral part of the floor covering until the application of latex backing with attendant loop-lock and fabric stabilizing action, the backsizing is a vital factor. The advantages of high solids natural and cold GRS latex are cited, and their application is described.

EXPERIMENTS WITH TERNARY FIBER MIXTURES. L. Rudolph. Deutsche Textiltech. 7, No. 3: 200-203 (1957). In German. Through BCIRA 37: 368 (1957). (3566)

Blends from Vistra, PeCe and Wolcrylon fibers were prepared and the tensile strength and elongation, creasing properties, and yarn cross-sections were examined. Tables and diagrams are given listing the composition of the ternary mixtures, the yarn-quality values, the yarn creasing angle and the fiber distribution in the yarn cross-section of the raw yarn and finished fabric.

PHYSICO-CHEMICAL BEHAVIOR OF CELLULOSE/PERLON BLENDS. E. Tögel and H. Petzold. Deutsche Textiltech. 7, Nos. 1/2: 121-130 (1957). In German. Through BCIRA 37: 368 (1957). (3567)

Differences between cotton and Perlon fibers in the fine fiber structure and chemical composition, chemical behavior (swelling, behavior to alkalis and acids, oxidizing agents, organic solvents), thermal behavior and elongation and contraction are discussed, with reference to the shrinkage of cotton/Perlon blends.

WOVEN FABRIC STRUCTURE: COLORED FIGURING IN TONE AND TEXTURE. D. C. Snowden. Man-Made Textiles 34: 42 (Nov. 1957). (3568)

Designs combining double and single weaves with simple warping patterns. Diagrams.

FINISHING AND CHEMICAL PROCESSING D

NEW TRENDS IN DYEING AND FINISHING. H. Robinette, Jr. (Robinette Research Laboratories). Modern Textiles Mag. 38: 50, 52 (May 1957); 46-48 (June 1957). (3569)

Part 1. Review of recent developments in wet processing with emphasis on the use of chemicals and chemical techniques which have reached commercial importance in the textile industry, such as antistatic finishes, new dyes for synthetic fibers, functional finishes, and chemically modified cottons. Part 2. Permanent plissé and embossed Avcoset finishes, deacetylated chitin for shrinkproofing wool, softening agents for wrinkle resistant fabrics, silicone water repellents, soil resistant finishes, and SRRL finishes for flameproofing cellulose fabrics are briefly reviewed.

HOW TO FINISH ORLON BLANKETS. K. D. Houser and L. Bidgood, Jr. Modern Textiles Mag. 38: 50, 52, 54 (Nov. 1957). (3570)

Details of fabric construction, cloth preparation, dyeing, napping, and felting or tucking are given.

PRETREATMENT, DYEING, AND FINISHING OF SPUN NYLON SHIRTING. H. U. Schmidlen. Ciba Rev. 11: 31-36 (Sept. 1957). (3571)

Three different methods of processing spun nylon fabrics are described. Tables. Photomicrographs.

FINISHING COTTON/POLYESTER FIBER SHIRTINGS. H. Stern and T. Weber. Ciba Rev. 11: 37-39 (Sept. 1957). (3572)

Methods of scouring, heat setting, bleaching, and dyeing with Microfix and Cibantine dyes are described, with emphasis on the dyeing.

TESTING HEAT-SET TRIACETATE GOODS. S. N. Bradshaw (Courtaulds Ltd). Man-Made Textiles 34: 60, 63 (Nov. 1957). (3573)

Methods for investigating the effect of heat setting conditions on fabric properties are described. Among the methods are dye desorption rate, resistance to extension, recovery from stretch, and resistance to deformation by heat and mechanical pressure.

CHEMICAL PROCESSES D 1

FOUR WAYS TO SCOUR DOMESTIC WOOL. G. Zellnik. Textile World 107: 145 (Nov. 1957). (3574)

The three-bowl scouring train, four-bowl scouring train, desuinting, and low quality wool scouring methods are briefly described. Tables.

YARN CONDITIONING TURBINE. Morel Freres. Textile Wkly. 57: 1166 (Oct. 25, 1957). (3575)

The conditioning turbine has been specially constructed for conditioning yarn wound on conical packages and is equally suitable for cotton, wool, flax, hemp, jute, and synthetic yarns. It is fully automatic and ensures that the liquid is evenly distributed throughout the package. Photograph.

PHOTOCHEMICAL DEGRADATION OF FIBROUS MATERIAL. A. Agster and O. Holzinger. Textil-Praxis (English ed.) No. 1: 26-30 (Mar. 1957). (3576)

Experiments on the comparative degradation of TiO_2 delustered and non-delustered viscose and Perlon showed that the delustered fabrics decompose to a greater extent both in sunlight and ultraviolet light. Tables. 8 references.

PRELIMINARY FINISHING AND BLEACHING OF PERLON/CELLULOSE BLENDS. G. Rösch. Deutsche Textiltech. 7. Nos. 1/2: 130-135 (1957). In German. Through BCIRA 37: 355 (1957). (3577)

The effects of singeing, desizing, and alkaline scouring under pressure on the structure of fibers and fabrics are examined, and directions are given for kier-hypochlorite bleaching and sodium chlorite bleaching.

WET PROCESSING METALLIC YARN FABRICS. R. W. Pinault. Textile World 107: 131-134 (Nov. 1957). (3578)

Recommendations for bleaching, scouring, singeing, desizing, mercerizing, dyeing, drying, and finishing fabrics containing metallic yarns are given in the form of a table. Identification methods are included.

DESIZING IN PREPARATION FOR THE SCOURING AND BLEACHING OF PIECE GOODS. Textile Recorder 75: 70-72 (Nov. 1957). (3579)

Information on caustic steeps for desizing, desizing before peroxide bleach, sodium perborate as desizing agent, desizing in quench-box of singeing machine, continuous desizing of cottons and spun rayons, combined desizing and bleaching, desizing spun rayons, and enzymatic reactions is included. 5 references.

OPEN-WIDTH BLEACHING WITH SODIUM CHLORITE FOR COTTON. R. Petermann and H. Fritzsch. Deutsche Textiltech. 7. No. 3: 223-224 (1957). In German. Through BCIRA 37: 355 (1957). (3580)

Results obtained in bleaching experiments with sodium chlorite are reported, the technology of pre- and after-treatment and the bleaching process itself (pad-roll method) are described, and reference is made to the problem of odor troubles and the use of wetting agents.

IMPROVING COTTON'S HEAT RESISTANCE. A. J. Hall. Textile Recorder 75: 66-68 (Nov. 1957). (3581)

Cotton able to withstand deterioration at high temperatures and during prolonged heating is obtained by mercerization, partial acetylation, cyanoethylation, and treatment with dicyandiamide. The results of these treatments are explained, with emphasis on dicyandiamide impregnation. Graphs. Tables. 5 references.

PROBLEMS OF CONSTRUCTIONAL MATERIALS IN CHLORITE BLEACHING. E. Dörfel. Melliand Textilber. 38, No. 3: 285-289; No. 4: 413-417 (1957). In German. Through BCIRA 37: 387 (1957). (3582)

The corrosive action of acid, neutral and alkali chlorite solutions is discussed, with special reference to the properties of various steels, corrosion-preventing agents, and the effect of complex formers (concealed corrosion). Of all the constructional materials tested, titanium was found an ideal material for simple and continuous bleaching installations.

OPEN-WIDTH WASHING OF FABRICS. M. J. Mouton. Teintex 22, No. 4: 253-267 (1957). In French. Through BCIRA 37: 387 (1957). (3583)

Experiences gained with various methods of open-width washing of fabrics and the installations used are reviewed.

BONDING OF TERYLENE POLYESTER FIBER TO RUBBERS. Imp. Chem. Inds. Ltd. Textiles in Industry 2: 75 (July/Aug. 1957). (3584)

Techniques for bonding Terylene to rubber by means of Vulcabond TX are given and storage properties of the products, as well as handling precautions, are included.

BARYTA NUMBER. H. Andreas. Melliand Textilber. 38, No. 4: 439-440 (1957). In German. Through BCIRA 37: 389 (1957). (3585)

The baryta number of mercerized cotton is defined as the ratio of the amount of barium hydroxide absorbed from a 0.25N solution by an accurately-weighed sample to the quantity absorbed under the same conditions by exactly the same weight of the unmercerized cotton. The method is described. The baryta number is used to indicate the degree of mercerization, i.e. the extent of the reaction between the mercerizing liquor and the cotton.

SILICONE IMPREGNATING AGENTS FOR TEXTILES. H. Eder. Textil-Praxis (English ed.) No. 3: 122-127 (Sept. 1957). (3586)

The two classes of silicone waterproofing agents available are discussed. Recommended methods of application and the resultant properties of the treated fabrics are described. Tables. 2 references.

COLD CURING SILICONE COMPOSITIONS. Textiles in Industry 2: 73-74 (July/Aug. 1957). (3587)

Esters formed from ortho-titanic acid and aliphatic alcohols, i.e. alkyl titanates and other organic titanium derivatives, besides being excellent catalysts, show the unique feature of providing catalysis even at room temperature. It is possible to admix certain selected silicones with alkyl titanates, e.g. buytl titanate, in a suitable organic solvent or solvents, and obtain a composition which is perfectly stable as long as moisture is excluded from the system, the catalyst only coming into play during the application of the composition to a substrate followed by the evaporation of the solvent. This treatment results in the envelopment of each individual fiber by a silicone sheath, the water-repellency of which is enhanced by the action of the titanium compound. Fabric properties and advantages of the cold curing system are summarized. Photograph.

LABELING OF RESINS IN FINISHED FABRICS BY MEANS OF FLUORESCENT DYES. H. Ruile. Melliand Textilber. 38, No. 4: 442-448 (1957). In German. Through BCIRA 37: 391 (1957). (3588)

As compared with the usual staining methods for determining the resin distribution in finished fabrics, the use of fluorescent dyes was found more convenient and applicable also to dyed fabrics. The dye can be added to the finishing liquor itself or applied to the resin-finished fabric. The results obtained are in good agreement with those from the usual resin determination.

BEHAVIOR OF RESIN-TREATED FABRICS TOWARD CHLORINATION. R. Aenishänslin. Ciba Rev. 11: 42-44 (Sept. 1957). (3589)

The reactions of resin-treated fabrics subjected to chlorination suggested the following conclusion: chlorinating treatment should be avoided in the case of all crease-resist, chemical shrink-resist, permanently embossed, and similar finishes produced with the assistance of thermosetting aminoplasts. If chlorination is not abandoned because of established laundry procedures, it is essential to carry out thorough anti-chloring with sodium thiosulfate or with sodium bisulfite. 3 references.

DYEING AND PRINTING D 2

DYEING OF WOOL, HAIR, AND POLYAMIDE FIBERS WITH METAL COMPLEX DYES. E. Schoenpflug (Badische Anilin & Soda Fabrik AG). Am. Dyestuff Reptr. 46: 851-858 (Nov. 18, 1957). (3590)

The structure and suitability of the four groups of metal complex dyes (1:1 metal complex dyes with sulfonic acid groups, 1:1 metal complex dyes containing solubilizing groups but no sulfonic acid groups, 1:2 metal complex dyes containing solubilizing groups but no sulfonic acid groups, and 1:2 metal complex dyes without any solubilizing groups) for dyeing wool, hair fibers, polyamide fibers, and wool/polyamide blends are discussed. Recommended procedures for each type of fiber are included. Diagrams. 16 references.

BEHAVIOR OF SULFUR DYES IN HIGH TEMPERATURE DYEING. G. Dierkes and G. Wilhelm. Z. ges. Textil-Ind. 59, No. 8: 311-313 (1957). In German. Through BCIRA 37: 356 (1957). (3591)

Most sulfur dyes are stable to a temperature of 120° C and are suitable for high temperature dyeing. Dyeings differing slightly in shade and color depth can be prevented by reducing the amount of sodium sulfide and increasing the cooling time, or cooling the dyebath to 70° C. The fastness properties of the high-temperature dyeings correspond to those of normal dyeings.

DYEING PERLON/CELLULOSE BLENDS. K. Queck. Deutsche Textiltech. 7, Nos. 1/2: 136-139 (1957). In German. Through BCIRA 37: 357 (1957). (3592)

Principles of dyeing cellulose with direct dyes and the theory of dyeing Perlon are discussed, the characteristics of suitable dyeing processes are described, and brief reference is made to the dyeing techniques applicable to various finished articles (stockings, gloves, overalls, etc.).

PRINTING AND PADDING ACRYLIC COPOLYMER FABRICS. A. Dürst. Textil-Praxis (English ed.) No. 2: 82-83 (June 1957). (3593)

Since the lightfastness of acrylic copolymer fibers, e.g., Dynel, is not good enough when using disperse, direct, or vat dyes, experiments were made using the complex metal Lanasyn dyes. The resulting prints had good lightfastness.

CARRIERS FOR DYEING POLYESTER AND TRIACETATE FIBERS. W. Hees. Textil-Praxis (English ed.) No. 3: 138-142 (Sept. 1957). (3594)

The properties and mode of action of carriers are discussed, those in practical use are summarized, and details on the use of Levegal PT are given.

NEW METHOD FOR DYEING POLYACRYLONITRILE FIBERS. E. Wagner. Deutsche Textiltech. 7, Nos. 1/2: 145-148 (1957). In German. Through BCIRA 37: 356 (1957). (3595)

Existing methods for dyeing polyacrylonitrile fibers are reviewed and a method developed by the author is described. This method is based on the reaction of nitriles with hydroxylamine to give amidoximes, an oxime-group (=N-O-H) and an amino-group ($-NH_2$) forming at the nitrile carbon. Acid, metal complex, union, and direct dyes can be used satisfactorily.

GERBER DOMINANT HANK DYEING MACHINE. R. Vogel. Textil-Praxis (English ed.) No. 2: 68-73 (June 1957). (3596)

The Dominant is suitable for dyeing all kinds of material in hank form, with the exception of those synthetic fibers requiring temperatures exceeding 100° C. Operation of the machine is described, and specific examples for dyeing viscose rayon and Perlon are included.

UNIVERSAL DYEING AND FINISHING PAD. Hans Pesch Maschinen- und Apparatebau. Textil-Praxis (English ed.) No. 3: 122 (Sept. 1957). (3597)

This new, universally applicable padding machine which can be adapted to any desired dyeing and finishing method permits the conversion of a 2-roller padding machine into a 3 or 4-roller pad. Diagrams.

PIGMENT PRINTING. G. Sulzer. Textil-Rundschau 12, No. 4: 172-179 (1957). In German. Through BCIRA 37: 387 (1957). (3598)

The principles of pigment printing are reviewed (31 references, 1943-1956) and the most suitable emulsion system and properties required of pigments, binders, thickening agents, and catalysts are discussed. A new process, the Ciba Microfix-method, is described and it is shown that the good results obtained are due to the use of a new binding system (a resin composition consisting of Microfix binder I, II, and III) and especially fast, finely-dispersed pigments.

SCREEN PRINTING STENCILS MADE OF NYLON GAUZE. R. Künzl. Textil-Praxis (English ed.) No. 1: 35-39 (Mar. 1957). (3599)

The preparation of nylon gauze stencils is described.

MULTI-COLOR EFFECTS ON PIECE DYED GOODS. H. Faldik. Textil-Praxis (English ed.) No. 3: 128-134 (Sept. 1957). (3600)

Multi-color effects on piece dyed goods can be obtained by means of fiber mixing (e.g. animal and vegetable fibers), or, on pure wool goods, in conjunction with chlorinated wool (ombré effects), resist wool, fast to cross-dyeing colored wools, and yarns subjected to an ombré (tone in tone) or flame coloring before weaving. Recommended procedures are given.

PREVENTING UNEVENNESS AT THE ENDS IN ANTHRASOL PAD DYEING. K. Dickmanns. Textil-Praxis (English ed.) No. 1: 31-34 (Mar. 1957). See TTD 14: 2206 (1957). (3601)

PRINTING PROBLEMS WITH PERLON/CELLULOSE BLENDS. K. Lunze. Deutsche Textiltech. 7, Nos. 1/2: 139-144 (1957). In German. Through BCIRA 37: 358 (1957). (3602)

Experiences are reported, with reference to the use of direct, vat, leuco vat, and insoluble azo dyes in base printing and resist processes, and to various rapid-dyeing dyes (Rapidazoles) and resin-bound pigment dyes. The appearance and fastness properties of the prints, the choice of suitable thickeners, and after treatment of the printed fabrics are discussed.

MODERN MACHINES FOR ROLLER PRINTING. A. Franken. Tex 16, No. 2: 180-186; No. 4: 445-448 (1957). In Dutch. Through BCIRA 37: 389 (1957). (3603)

WHITE AND COLORED RESISTS UNDER PHTHALOGEN DYES. F. Gund. Melliand Textilber. 38, No. 4: 440-442 (1957). In German. Through BCIRA 37: 389 (1957). (3604)

Examples are given and samples are shown of white and red resists under Phthalogen Brilliant Blue IF_3G and Green IFFB, using zinc salts or zinc oxide as resist agents with Rapidogen or Anthrasol dyes and development by acid steaming.

PRINTING OF SELVAGES. Johannes Menschner, Textilmaschinenfabrik. Textil-Praxis (English ed.) No. 1: 48 (Mar. 1957). (3605)

On the selvage printing machine printing is done by means of a heated stamp and a tape of paper on which colored wax has been applied.

PRINTMASTER PRINTING MACHINE. Etab. A. Deck. Textil-Praxis (English ed.) No. 2: 75 (June 1957). (3606)

Construction and operation of the Printmaster roller printer are briefly described.

BASF LUPRINTOL-K PROCESS FOR PRINTING WITH VAT DYES. Badische Anilin- und Soda-Fabrik AG. Textil-Praxis (English ed.) No. 2: 87-88 (June 1957). (3607)

Fundamentally, this process is based on the use of viscose emulsions as substitutes for conventional thickening agents such as starch, tragacanth, etc., formerly used for producing the dye pastes.

SCREEN PRINTING OF STOCKINGS. A. Franken. Textil-Praxis (English ed.) No. 1: 39-44 (Mar. 1957). (3608)

The construction and operation of the cylinder printing machine and its use in the screen printing of sports hosiery are described. Photographs. 4 references.

FAST WHITE RESIST ON NYLON. J. G. Jakob. Spinner u. Weber 75, No. 8: 404 (1957). In German. Through BCIRA 37: 389 (1957). (3609)

Some measures to be taken against yellowing of white resists on polyamide fibers (caused by insufficient precleaning of the discharge printed fabric, use of unsuitable ground dyes, faulty printing-paste composition, and insufficient removal by washing of the decomposition products formed during the discharging process) are discussed.

DYEING EFFECTS OF BLEACHING WITH OPTICAL BRIGHTENING AGENTS. F. Weber. Textil-Praxis (English ed.) No. 3: 134-137 (Sept. 1957). (3610)

The application of optical brighteners causes changes in color, the more so because these brighteners are chiefly used in producing pastel shades to avoid the necessity of bleaching the material to eliminate the yellow tint in the fiber. In addition, when polyacrylonitrile fibers are treated with white tinting agents, there exists the danger that brilliantly dyed shades will become dim or dulled, as a consequence of the bleaching effect of daylight and sunlight. The technical difficulties arising from this problem are discussed, and the need for further investigation on the resistance to heat and the nonsubliming qualities of optical brightening agents, and their conduct in baths with organic solvents or carriers is pointed out. 7 references.

MECHANICAL PROCESSES D 3

REDUCTION OF FIRE DAMAGES DURING SINGEING. F. Günther. Deutsche Textiltech. 7, No. 3: 228-229 (1957). In German. Through BCIRA 37: 355 (1957). (3611)

The innovation described consists in (1) lengthening the path of the cloth, delivered from the last squeezing mechanism, by about 6 m to obtain better cooling and to be able to observe any sparks carried on the cloth; (2) arranging additional boxes closely behind the gas burner to accommodate in them moist viscose sponges which are pressed against the bottom rollers of the squeezing mechanism by an adjustable bar extending over the whole width of the box.

CRUSHING EFFECTS IN CALENDERING. W. Bobeth. Deutsche Textiltech. 7, Nos. 1/2: 153-158 (1957). In German. Through BCIRA 37: 360 (1957). (3612)

Experiments, carried out by means of a small calender, showed that, depending upon the material, the crushing effect of the rollers can cause positive or negative length variations in textile filaments and fabrics, provided that there are no interferences due to twist, weave, etc. The crushing can result in a change of the state of orientation and, consequently, in the physical and textile properties of the material. Thus, by combining temperature, swelling agents,and pressing it may be possible to produce finishing effects which depend not only upon external but also internal properties of the textiles.

ELECTROSTATIC FLOCKING. P. Lion. Rayonne et Fibres Synthet. 13, No. 4: 445-460 (1957). In French. Through BCIRA 37: 389 (1957). (3613)

The development of electrostatic flocking in France is reviewed, with special reference to the theory (charge by ionization, conduction and combination of both), various machines (for piece-good treatment, and for semicontinuous and continuous operations) and general observations on techniques.

CORONIZING TREATMENTS FOR GLASS FABRICS. W. Bobeth and U. Renner. Faserforsch. u. Textiltech. 8, No. 3: 108-114 (1957). In German. Through BCIRA 37: 388 (1957). (3614)

Various heating methods were tried in the laboratory, by means of which lubricants can be removed from alkali-containing glass fibers (coronizing) and the fabric fixed. The hot air process at 425° C decreased considerably the strength of the glass fabric, but this could be corrected by certain impregnating agents (Astorite, vinyl, trichlorsilane, etc.) which, moreover rendered the treated fabric softer and more resistant to slippage.

DRYING D 4

DUTCH UNIT DRYER FOR FABRICS AND YARNS. J. F. Muller. Tex 16, No. 4: 454-456 (1957). In Dutch. Through BCIRA 37: 392 (1957). (3615)

The unit dryer (Joh. Verhulst & Sons, Waalwijk) differs in its construction from the usual dryers in that blowing nozzles are arranged on the periphery of a cylindrical drum to blow hot air at a high velocity over the fabric or yarn to be dried. At one end of the drum is arranged an axial fan which presses the air through a diffuser into the nozzle drum. The new machine takes up little floor space and has a water vaporizing capacity of about 150 kg/hour and a steam consumption of about 1.5 kg/kg vaporized water.

TESTING AND MEASUREMENT E

MOISTURE IN TEXTILES. Can. Textile J. 74: 55-56 (Nov. 1, 1957). (3616)

Canadian specification for the laboratory determination of the amount of moisture present in textile materials, expressed either as moisture content or moisture regain.

MEASURING AND TESTING IN THE TEXTILE LABORATORY. G. Meichsner. Spinner u. Weber 75, No. 7: 299-302 (1957). In German. Through BCIRA 37: 363 (1957). (3617)

Review of existing and hitherto unpublished methods for determining sizes or dressing agents on fabrics; bleaching agents; mercerization effect, luster, deposition of resins, creasing angle, copper on fabrics, flameproofness, washfastness, resistance to bacteria, and abrasion resistance of fabrics; sliding property of yarns; wettability of textiles; surface-activity of textile assistants; levelling power of dyes; detergent action and charge of textile assistants.

STRENGTH TESTING FIBERS AND FILAMENTS. H. Stein. Rayonne et Fibres Synthet. 13, No. 4: 465-472 (1957). In French. Through BCIRA 37: 397 (1957). (3618)

Descriptions and illustrations are given of devices used for measuring the tensile properties of fibers, with special reference to the Fafegraph for studying relaxation phenomena, and the Frenzel-Hahn tester for determining elongation and tensile strength on the running thread.

SIGNIFICANCE TESTING IN MILL EXPERIMENTATION. N. L. Enrick and S. C. Lawrence. Institute of Textile Technology, Charlottesville, Va., Nov. 6, 1957. 9 p. ITT report no. 15. (3619)

Tests of significance of difference in sample averages are described, using a simplified statistical computation formula. This test permits a mill to evaluate differences in sample averages between "new" and old stock. The term "new" is used in the sense of different from the regularly utilized method, equipment, or material. A table permits evaluation of the observed differences in terms of 95% significance levels.

UNIVERSAL APPARATUS FOR TESTING COLORFASTNESS TO RUBBING. F. Ruf. Textil-Praxis (English ed.) No. 2: 76-78 (June 1957). (3620)

With the apparatus described the resistance to rubbing of wet and dry fibers, rayon, yarn, and woven or knitted fabrics may be determined.

FIBERS E 1

DYNAMIC SINGLE FIBER TESTING METHODS. W. Friedemann. Deutsche Textiltech. 7, Nos. 1/2: 158-167 (1957). In German. Through BCIRA 37: 363 (1957). (3621)

Devices and methods for measuring single fiber abrasion, bending fatigue, torsion, and bending rigidity are described, with reference to the accuracy of the measured values and their importance in predicting the processing properties of the respective fibers. 11 references.

THEORY OF FIBER EXTRACTION. CHAPTER 4. SUPPL. PROPERTIES AND TESTING OF FIBERS. J. G. Thieme. Textile & Cordage Quart. 7, No. 3: 130-133 (1957). (3622)

Methods for testing the tensile strength of fibers are reviewed, and the correlation of this property, as well as fiber color and luster, with the quality of extraction is explained.

YARNS E 2

HARP DYNAMOMETER. A. Wilhelm and U. Reinshagen. Melliand Textilber. 38, No. 4: 382-388 (1957). In German. Through BCIRA 37: 400 (1957). (3623)

Principles of strength testing are discussed, and the construction of the harp dynamometer, the interpretation of the diagrams produced and their practical application are described.

NOMOGRAM FOR BREAKAGE-FREE YARN LENGTHS. H. Eigenbertz. Melliand Textilber. 38, No. 4: 338-389 (1957). In German. Through BCIRA 37: 380 (1957). (3624)

A nomogram and examples of its use for determining the breakage-free yarn length at a given number of yarn breakages/1000 km are given, the breakage-free yarn length being defined as the length (in km) in which a "true" yarn breakage could occur during any operation.

SOME ASPECTS OF THREAD TESTING. A. H. Milnes (Cook & Co. Ltd). Textile Recorder 75: 62-64 (Nov. 1957). (3625)

The defects of the usual methods for predicting yarn breakage during processing (e.g. the lea test and single yarn test) are discussed, and the advantages and main features of the continuous winding test are pointed out. The test involves running a length of yarn through an instrument, such as the Cook constant tension continuous yarn tester, at a relatively high speed (60 yds. per minute) under a constant tension which is predetermined and fixed according to the count and quality of the particular yarn. The yarn is broken at the places which cannot sustain the tension imposed, and the results are normally expressed as breaks per 1,000 yds. The mathematical interpretation of test results is explained, and practical applications are given. Graphs. Photograph.

DETECTING DAMAGED WOOL BY MEANS OF BREAKING STRENGTH AND ELONGATION TESTS. E. Schumann. Textil-Praxis (English ed.) No. 2: 83-87 (June 1957). (3626)

It is shown that by simple tests of breaking strength, elongation and fatigue on yarn it is possible to accurately determine damaging effects in a short time.

TWO NEW METHODS OF TESTING YARN TWIST. O. Lörcher. Melliand Textilber. 38, No. 4: 365-366 (1957). In German. Through BCIRA 37: 400 (1957). (3627)

Both the weighting method and the slide-stretching (fiber-slipping) method give better results than the tension-scanning and breaking-twist methods and can be carried out on all devices suitable for the tension-scanning method.

OPTIMUM TWIST COUNTER. P. Dubach. Melliand Textilber. 38, No. 4: 360-365 (1957). In German. Through BCIRA 37: 400 (1957). (3628)

The device described (Maschinenfabrik Baech AG) makes it possible to determine quickly and accurately the absolute and optimum twist in yarn. With the aid of additional devices, strength relationships can be investigated. The hand-driven apparatus is cheap and is able to accommodate up to ten samples simultaneously.

USTER SPECTROGRAPH FOR UNIFORMITY ANALYSIS. W. Burkhart. Textil-Praxis (English ed.) No. 2: 78-87 (June 1957). (3629)

The Uster spectrograph evaluates the electric magnitudes obtained with the Uster evenness tester, and records curves representing the spectrograph for the range of analysis.

EGATEX TESTER FOR SLIVER AND ROVING REGULARITY. H. Langer and K. Parthey. Deutsche Textiltech. 7, Nos. 1/2: 168-172 (1957). In German. Through BCIRA 37: 366 (1957). (3630)

The new tester and its advantages are described and the first results obtained with it are reported. Normally, the test covers a measuring range of ±50%, but the range is also adjustable to ±100%, ±25% and ±12.5%. The apparatus is particularly suitable for cotton spinning mills. The results are in good agreement with those obtained with the Uster tester.

FABRICS E 3

LUNOMETER FOR DETERMINING DIMENSIONAL CHANGES IN TEXTILES. H. Jörder. Textil-Praxis (English ed.) No. 1: 45-48 (Mar. 1957). (3631)

This line-grating (made by Peter Luhn, Wuppertal, Barmen) consists of an unbreakable 20 cm. long Plexiglas plate with an engraved line system and three scales for reading off the number of threads or stitches per length unit. It is only applicable to fabrics with a line structure.

TWO NEW DRYCLEANING TEST METHODS. AATCC Comm. on Drycleaning Test Methods. Am. Dyestuff Reptr. 46: P859-P860, P884 (Nov. 18, 1957). (3632)

A method of evaluating the probable behavior of colored textiles in commercial drycleaning (Tentative Test Method 85-1957) has been adopted by the AATCC. It has also approved a new test for evaluating the durability of applied designs and finishes to drycleaning(Tentative Test Method 86-1957). Both tests are described.

STUDY OF THE VARIABLES ENCOUNTERED IN NATURAL LIGHT FADING. AATCC Comm. on Colorfastness to Light. Am. Dyestuff Reptr. 46: P861-P883 (Nov. 18, 1957). (3633)

In natural light exposures, the greatest contributing factor in the amount of color change produced is the total amount of radiation received. Langley units which integrate time and intensity of radiation appear to be a satisfactory measure of total radiation received and to provide a satisfactory control for evaluating lightfastness properties. The amount of color change produced is also affected, but to a lesser degree and not equally on all specimens, by variations in specimen temperature, moisture content, radiation intensity, spectral distribution, and possibly other factors not yet recognized or identified. The new AATCC Daylight Exposure Method, employing exposure under glass 24 hours a day against AATCC Lightfastness Standards, while not as reproducible as the AATCC Sunlight Test under glass only between the hours of 9 am and 3 pm, will better predict service performance. Tables. Graphs. Photographs. 13 references.

SOME METHODS OF TESTING COTTON SHIRTING. N. Bigler. Ciba Rev. 11: 39-42 (Sept. 1957). (3634)

Tests for distinguishing between chemical and mechanical laundry damage, determining degree of mercerization, detection of dead and immature cotton, and deciding on whether a shirt has been worn are briefly described. Photomicrographs. 5 references.

BREAKING LOAD AND EXTENSION OF STRIPS OF WOVEN TEXTILE FABRIC. J. Textile Inst. 48: P680-P683 (Sept. 1957). (3635)

Tentative textile standard no. 46.

INDUSTRIAL ENGINEERING F

MACHINERY AND MAINTENANCE F 1

NEW SAFETY DEVICE FOR TEXTILE MACHINES. F. Brauer. Textil-Praxis (English ed.) No. 2: 92-96 (June 1957). (3636)

The newly developed safety control, created by the Maschinenfabrik Temafa, safeguards all the dangerous components by locking devices which cannot be made ineffective by the operator while the machine is in operation, except by using force. The principal characteristic of the new arrangement is that the machine cannot be operated until protective covers are shut or wire screen guards put in place. The use of the control for the card breaker is illustrated. Photographs.

MAINTENANCE FOR WET PROCESSING PLANTS. Textile Ind. 121: 95-110 (Nov. 1957). (3637)

How maintenance is planned at Union Bleachery, p. 96-101; Wet processing instruments, by W. H. Ridley, p. 102-105; The department head's responsibility in maintenance, by M. Stanley, p. 106-108; and Calender roll maintenance, by C. A. Potter, p. 109-110. Photographs.

ELECTRICAL EQUIPMENT FOR THE TEXTILE INDUSTRY. American Institute of Electrical Engineers. AIEE Conference, November 14-15, 1957. Available from School of Engineering, North Carolina State College, Raleigh, N. C. (3638)

Co-ordination of circuit breakers and fuses in textile mills, by E. R. Burgin; Starting and maintenance of range drives, by C. L. Griffin; A-C group drives for modern textile machines, by C. G. Helmick; Clutch-brake motor applications to textile machinery, by E. P. Turner; DuPont's engineering approach to materials handling, by C. B. Putney; Fundamentals of d-c circuits and d-c motors, by G. B. Hoadley; Basic motor control circuits, by M. R. Brice; An ideal electrical layout for a textile mill, by M. V. Gelders; Modernization of electric applications in cotton mills, by G. V. Fowler.

QUALITY CONTROL F 3

TABLES SHOWING HOW MUCH QUALITY CONTROL TESTING TO DO. 3d. ed. rev. N. L. Enrick. Institute of Textile Technology, Charlottesville, Va., Nov. 25, 1957. 22 p. ITT report no. 13. (3639)

In addition to the formulas and tables for tests in the control of sample averages, loom-stop observations, and ends-down determinations, data are provided in the revised edition for control of variation coefficients. First the general formula is given, and then a ready-made table is furnished covering allowable sampling errors from 1 to 25%, and sampling risks of 0.3, 1.0 and 5.0%. Typical examples illustrate the use of the formula and table. 6 references.

OTHER F 4

DETERMINING THE NUMBER OF MACHINES TO BE ATTENDED TO MINIMIZE THE TOTAL COST PER UNIT OF PRODUCTION. C. J. Anson. Time & Motion Study 6, No. 4: 13-27 (1957). Through BCIRA 37: 375 (1957). (3640)

Tables and graphs are presented and the procedure for using them is described and illustrated by means of a worked example.

FIGURING SPINNERS' PAY. M. Chagro. Textile Ind. 121: 111-113 (Nov. 1957). (3641)

The most common methods for determining spinners' wages and sides run are examined critically, and a "constant" method is recommended. The "constant" method is such that it actually makes no difference what the daily shift or weekly hours are, provided the rate is established on a 40-hour basis. If the work week increases or decreases and the basic rate remains established at 40 hours, the average sides tended are quickly determined by this method. Tables.

SCIENCES G

CHEMISTRY G 1

EFFECT OF CRYSTALLITE WIDTH ON THE FORM OF LONG-PERIOD INTERFERENCES IN SYNTHETIC FIBERS. H. Rothe. Kolloid Z. 151, No. 2: 155-157 (1957). In German. Summary in BCIRA 37: 398 (1957). (3642)

MISCELLANY H

MARKET RESEARCH IN THE COTTON INDUSTRY. O. W. Roskill. Textile Merc. 137: 696-703 (Oct. 25, 1957); Textile Wkly. 57: 1163-1166 (Oct. 25, 1957). (3643)

Analysis of how market research can best be undertaken and applied to the present organization of the European cotton industry.

NEW EQUIPMENT FOR THE MILLS. Brit. Cotton Industry Research Association. Textile Wkly. 57: 1084-1086 (Oct. 18, 1957). (3644)

The dry-feed attachment to the Shirley automatic size box, the Shirley positive, double-lift, open shed dobby, the Shirley separator for breaking-up machines, the Shirley air permeability apparatus and hydrostatic head apparatus, and the Shirley R.S. meter for measuring the differences in surface speeds of drafting rollers are briefly described.

KNITTING ARTS EXHIBITION. G. A. Urlaub. Modern Textiles Mag. 38: 50-55 (July 1957); 35-38, 54-57 (Aug. 1957). (3645)

PATENT CHECKLIST

U.S. patents may be obtained from the U.S. Patent Office, Washington, 25, D.C., for 25¢ a copy. Photostatic copies of foreign patents are also available. Charges for these photostats are based on the number of pages in the patent.

YARN PRODUCTION B

PRODUCING BLENDED SLIVERS. Société de Constructions Mecaniques de Stains. BP 774 360, May 8, 1957. Through BCIRA 37: 381 (1957). (3646)

Tows of the different fibers (e.g. rayon and nylon) are combined, and drawn together to effect breakage of the filaments.

LUBRICATION OF TEXTILE FIBERS. R. H. H. Morley (to Textile Oils Ltd). BP 774 511, May 8, 1957. Through BCIRA 37: 381 (1957). (3647)

Mineral oils are mixed with scouring enhancing materials that contain one free hydroxyl group having the characteristics of an alcohol at the end of a polyethylene oxide chain.

CRIMPED SYNTHETIC YARNS. Inventa AG für Forschung und Patentverwertung. BP 775 075, May 22, 1957. Through BCIRA 37: 383 (1957). (3648)

The moist yarn is given a twist of at least 1,500 turns/meter during which the moisture is evaporated, by heat, to set the twist; it is then backtwisted and reeled.

APPARATUS FOR CRINKLING YARN. R. H. Lawson and S. R. Shelmire (to Scott & Williams, Inc.). USP 2 812 569, Nov. 12, 1957. (3649)

Nylon or similar yarn is fed to a machine resembling a knitting machine and is crinkled, without being knit, while subjected to sufficient heat to soften the yarn and provide permanent crimping upon cooling.

OPENING, PICKING, FIBER PREPARATION B 1

PNEUMATIC DELIVERY BOX. G. Short and A. Linnert (to Brit. Cotton Industry Res. Assoc.). BP 754 670, Aug. 8, 1956. Through BCIRA 37: 348 (1957). (3650)

Means for conveying cotton in an air stream and depositing it at a required location.

PNEUMATIC DELIVERY BOX FOR COTTON OPENING MACHINERY. A. Linnert and G. Short. USP 2 810 937, Oct. 29, 1957. (3651)

DECORTICATION OF STALKY VEGETABLE MATERIALS. P. M. Horton and A. G. Keller (to Louisiana State Univ.). USP 2 812 552, Nov. 12, 1957. (3652)

Hammer mill for treating stalky fibrous vegetable stalks (e.g., sugar cane bagasse, bamboo, maize stalks) to separate them into suitable pith-free fiber and pith fraction.

CARDING AND COMBING B 2

DEFLECTOR PLATES FOR CARDING ENGINES. G. Johnson. BP 754 548, Aug. 8, 1956. Through BCIRA 37: 348 (1957). (3653)

FEEDING APPARATUS FOR CARDING MACHINES. N. Taylor (to F. W. Taylor & Son Ltd). BP 754 964, Aug. 15, 1956. Through BCIRA 37: 348 (1957). (3654)

Machines for delivering weighed amounts of fiber to wool or cotton condenser cards in which the fiber falls down a chute into a weighing pan and a shutter closes the chute when the pan receives its appointed load.

SLIVER BALLER. Tematex Srl. BP 774 569, May 8, 1957. Through BCIRA 37: 382 (1957). (3655)

The sliver delivered by the single or double pinfield gill box is condensed on to a freely rotatable deviation roller and thence to the ball roller.

SLIVER COILING. M. E. Morton (to T.M.M. (Research) Ltd). BP 774 698, May 15, 1957. Through BCIRA 37: 381 (1957). (3656)

By adjustment of the movement of the coiler tube or the sliver can, coils are so laid as to enclose an axial hole the diameter of which is one-quarter to one-half the diameter of the can. Better packing is thereby achieved.

RECTILINEAR COMBING MACHINES. R. A. Gillespy and J. R. Foster (to T.M.M. (Research) Ltd). BP 774 909, May 15, 1957. Through BCIRA 37: 382 (1957). (3657)

Driving arrangements for the comb cylinder and cylinder brush.

GILL BARS. Schiess AG. BP 775 332, May 22, 1957. Through BCIRA 37: 382 (1957). (3658)

ROLLER-GRINDING ATTACHMENTS IN CARDING ENGINES. A. A. Stott (to T. M. M. (Research) Ltd). BP 775 123, May 22, 1957. Through BCIRA 37: 381 (1957). (3659)

Means are provided whereby a worker or stripper may be ground in situ at the same time as the doffer.

CARD RUBBING APRONS. Pirelli SpA. BP 775 521, May 22, 1957. Through BCIRA 37: 381 (1957). (3660)

The rubber aprons have a multiplicity of deep, closely spaced cuts.

UNIFORM CARD SLIVER. W. Altenburger. USP 2 810 936, Oct. 29, 1957. (3661)

Variable speed drive for the calender rollers drawing the card sliver from the sliver funnel and delivering it to the coiler can. The same drive controls the speed of rotation of the coiler can in relation to that of the calender rollers to ensure even coiling.

DRAWING AND ROVING B 3

APPARATUS FOR DRAFTING AND PARALLELIZING SLIVER AS IT IS DOFFED FROM A CARDING ENGINE. Societa Italiana 'Cardpen'. BP 754 608, Aug. 8, 1956. Through BCIRA 37: 349 (1957). (3662)

DRAFTING ROLLS FOR DRAWING FRAMES. E. McCartney and J. A. Matthew (to Linen Industry Research Assoc.). BP 774 183, May 8, 1957. Through BCIRA 37: 382 (1957). (3663)

One of the pressing rollers in a frame for bast or other long staple fibers is covered with rubber and a lead-off member is provided.

TOP ROLL WEIGHTING. R. Nebich (to VEB Spinnereimaschinenbau Karl-Marx-Stadt). BP 776 030, May 29, 1957. Through BCIRA 37: 382 (1957). (3664)

A loading arrangement is described that gives equal pressure irrespective of the position of the top rollers.

SLIVER-ACTUATED STOP MOTION. J. R. Whitehurst (to Ideal Industries). USP 2 811 753, Nov. 5, 1957. (3665)

Detector finger, positioned between calender rolls of a drawing frame or carding machine and the mouth of a coiler mechanism, which activates the stop motion mechanism of the processing machine upon excessive accumulation of fiber at the mouth of the coiler.

SPINNING, WINDING, TWISTING B 4

CONTINUOUS MANUFACTURE OF A PLIED YARN. NV Onderzoekingsinstituut Research. BP 754 942, Aug. 15, 1956. Through BCIRA 37: 349 (1957). (3666)

One-spindle doubling device in combination with a twisting device for producing a plied yarn with any desired twist and composed of at least two yarns having any desired twist, except the same twist.

YARN GUIDE FOR WINDING PACKAGES WITH DIFFERENTLY TAPERED ENDS. P. L. Hobourn (to Hobourn Aero Components Ltd). BP 754 116 and 754 117, Aug. 1, 1956. (Addition to BP 708 332.) Through BCIRA 37: 353 (1957). (3667)

SPINDLE BRAKE. G. A. Hayhurst (to William Bodden & Son Ltd). BP 754 138, Aug. 1, 1956. Through BCIRA 37: 349 (1957). (3668)

Means for stopping a single spindle on a spinning, doubling or twisting frame comprise a brake drum around and rotable with the spindle, a contracting ring encircling the drum and having converging faces on either side of a radial aperture in the ring, and a forked member so mounted that it can slide forward into engagement with the converging faces, so as to contract the ring and cause it to grip the drum.

PREVENTING THREAD ENTANGLEMENTS IN PNEUMATIC YARN HOLDING DEVICES FOR AUTOMATIC WINDING MACHINES. W. Reiners. BP 754 785, Aug. 15, 1956. Through BCIRA 37: 353 (1957). (3669)

CORE OR BOBBIN FOR WINDING AND UNWINDING YARN. D. Van Katwijk (to Van Katwijk's Papier- and Carton-verwerkende Industrieen NV). BP 754 787, Aug. 15, 1956. Through BCIRA 37: 353 (1957). (3670)

Paper tubes for yarn packages are formed with annular or helical grooves and the bottom and sides of the grooves are roughened, e.g. by embossing. Unwinding speeds up to 1,200 yards per minute are said to be possible through roughening the groove.

YARN PACKAGING. E. Erb (Switzerland). BP 754 809, Aug. 15, 1956. Through BCIRA 37: 353 (1957). (3671)

Rotating guide lays the yarn in rings around conveying members (oppositely threaded spindles driven in opposite directions) which deposit the rings on a rotating table to build up a stack of rings overlapping in spiral form.

BUILDER MOTIONS FOR RING SPINNING MACHINES. Brematex. BP 774 343, May 8, 1957. Through BCIRA 37: 382 (1957). (3672)

For both cylindrical and conical layers of yarn.

COLLECTING AND PACKAGING YARN BOBBINS FOR TRANSPORT AND STORAGE. Vereinigte Glanzstoff Fabriken AG. BP 774 442, May 8, 1957. Through BCIRA 37: 385 (1957). (3673)

YARN CLEARER. W. H. Bernhard (to Wanner AG). BP 774 740, May 15, 1957. Through BCIRA 37: 385 (1957). (3674)

HYDRAULIC TRAVERSE MECHANISM FOR SPINNING, TWISTING AND WINDING MACHINES. L. C. Goodwin and C. H. M. Thorpe (to Harbens Ltd. and T. M. M. (Research) Ltd). BP 775 480, May 22, 1957. Through BCIRA 37: 382 (1957). (3675)

Means are provided for cyclically varying the delivery of fluid to the motor.

TWISTING MACHINE. M. Ratti (Italy). BP 774 827, May 15, 1957. Through BCIRA 37: 383 (1957). (3676)

Device for preventing snarling when the machine is stopped.

BOBBINS. Toyo Rayon KK. BP 774 847, May 15, 1957. Through BCIRA 37: 385 (1957). (3677)

Bobbins having an internal metal tube and an outer paper tube.

PIRN WINDING MACHINERY. A. A. Atkins (to Courtaulds Ltd). BP 774 908, May 15, 1957. Through BCIRA 37: 384 (1957). (3678)

The tension devices are isolated from the main frame so that no vibrations are transmitted to them.

HIGH SPEED SPINDLES HAVING TWO CO-AXIAL COMPONENTS. W. O. Bell and A. Westall (to T. M. M. (Research) Ltd). BP 774 921, May 15, 1957. Through BCIRA 37: 382 (1957). (3679)

FALSE TWISTING DEVICES. Inventa AG für Forschung und Patentverwertung. BP 775 076, May 22, 1957. Through BCIRA 37: 382 (1957). (3680)

Rotatable tube provided at one end with a flange having one or more holes. The yarn passes through the tube and the holes.

THREAD-TENSIONING MECHANISM FOR WINDING MACHINES. Maschinenfabrik Schweiter AG. BP 775 372, May 22, 1957. Through BCIRA 37: 384 (1957). (3681)

SPINDLE FOR SPINNING OR TWISTING MACHINE. E. Reissmueller and H. Gassner (to Kugelfischer Georg Schafer & Co.). BP 775 389, May 22, 1957. Through BCIRA 37: 382 (1957). (3682)

The spindle has a removable upper part including a whorl and a lower part with a fixed bearing housing, the retaining means being protected against ingress of lint.

SORTING PIRNS. G. Lee (to Thomas Holt Ltd). BP 775 652. May 29, 1957. Through BCIRA 37: 385 (1957). (3683)

Pirns are automatically sorted and delivered successively, one by one, to a conveyor for an automatic winding machine of the traveling spindle type.

PRESSURE APPLYING MECHANISM FOR SPINNING MACHINE DRAFTING ROLLS. T. Nesbitt-Dufort and J. S. Waite (to Fairbairn Lawson Combe Barbour Ltd). BP 775 709, May 29, 1957. Through BCIRA 37: 382 (1957). (3684)

TENSION CONTROLLING APPARATUS FOR TIRE CORD WOUND FROM ONE PACKAGE TO ANOTHER. W. E. Mitchell (to Dunlop Rubber Co. Ltd). USP 2 812 144, Nov. 5, 1957. (3685)

SPINNING FRAME DRAFTING MECHANISM. R. Rulon-Miller and W. H. Tabor (to Dixon Lubricating Saddle Co.). USP 2 810 938, Oct. 29, 1957. (3686)

Drafting unit in which the top rolls are weighted and guided by means of an arm extending above the rolls. The unit may be swung upwards for ease of threading or completely removed from the frame.

SLUBBING APPARATUS. D. A. Wilkinson. USP 2 810 939, Oct. 29, 1957. (3687)

Clutch mechanism for alternately effecting normal and relatively slow rotation of the drafting rolls of a spinning frame according to a predetermined pattern.

SLUBBING APPARATUS. R. W. McCullough (to Deering Milliken Research Corp.). USP 2 811 011, Oct. 29, 1957. (3688)

Electrically controlled clutch which couples a variable speed motor to the feed rolls of a spinning machine when slubs are to be produced.

PLYING APPARATUS. N. E. Klein (to Deering Milliken Research Corp.). USP 2 811 012, Oct. 29, 1957. (3689)

Capstan array for plying spindle arrangements in which metering and tension control of the plying strands may be accomplished without altering the path of the strands.

TWO-FOR-ONE TWISTING MACHINE. N. E. Klein (to Deering Milliken Research Corp.). USP 2 811 013, Oct. 29, 1957. (3690)

Improved flyer and yarn storage package which provide proper tension regulation for maintaining a constant balloon diameter and uniform high twist at high spindle speeds to a wide variety and weights of yarns.

BOBBIN WINDING MACHINE. A. E. Herbert, J. Woods and R. Turner (to John Bright & Brothers Ltd). USP 2 811 317, Oct. 29, 1957. (3691)

Uniform tension control is achieved by means of a weight resting on the top bobbin and on the thread being wound. The weight is mounted on an arm of a bell-crank lever pivoted on an axis parallel with the bobbin axis and counter-weighted, so that as the bobbin fills, the weight is automatically reduced and finally removed.

PIRN WINDING MACHINE TRAVERSE MECHANISM. H. L. Muschamp and J. R. Grady. USP 2 811 318, Oct. 29, 1957. (3692)

Combination yarn guide traverse mechanism oscillatably mounted on a carriage to provide normal traverse, with means for imparting a bunch building traverse to the yarn guide and over-riding the normal traverse.

BOBBIN WINDING MACHINE TRAVERSE MECHANISM. W. Bakker (to American Enka Corp.). USP 2 811 319, Oct. 29, 1957. (3693)

Method of mounting the traverse mechanism out of interfering relationship with an individual bobbin spindle so that thread-tying or individual doffing can take place while the machine as a whole continues to operate.

TOP DRAFTING ROLLS FOR SPINNING MACHINES. R. Nebich (to VEB Spinnereimaschinenbau Karl-Marx-Stadt). USP 2 811 751, Nov. 5, 1957. (3694)

Top roll weighting arrangement in which the top rolls are subjected to the same load at all times, regardless of the distances between the rolls, without necessitating a change in the position of the weighting mechanism.

DRAFTING ROLL COVERS. R. A. Garrett (to Armstrong Cork Co.). USP 2 811 752, Nov. 5, 1957. (3695)

Drafting roll cover characterized by lap resistance is composed of an oil-resistant synthetic rubber (e.g. butadiene-acrylonitrile copolymer) containing a surface active agent to impart an anti-licking character.

TWISTING SPINDLES FOR HIGHLY ELASTIC SYNTHETIC YARN. F. H. Sweet (to Curtiss-Wright Corp.). USP 2 811 824, Nov. 5, 1957. (3696)

SEPARATOR MOUNTING FOR RING SPINNING FRAMES. D. C. Cumberworth (to Southeastern Tool & Die Co.). USP 2 811 825, Nov. 5, 1957. (3697)

Brackets for mounting the bars holding the separators to permit easy oscillation of the separators from operative to inoperative position.

TOP DRAFTING ROLLS FOR SPINNING MACHINES. K. P. Swanson. USP 2 812 554, Nov. 12, 1957. (3698)

Drafting rolls mounted to rotate freely on arbor bearings and supported against axial movement without requiring the fine tolerances generally necessary in anti-friction assemblies.

DETECTING BROKEN ENDS OR STRANDS ON TEXTILE MACHINERY. J. Tillett, Jr. (to Pneumafil Corp.). USP 2 812 632, Nov. 12, 1957. (3699)

Air gap capacitor-inductance unit for detecting broken ends and discontinuing the operation of the frame.

YARNS B 5

HIGH BULK POLYACRYLONITRILE YARN. W. C. Appleton and W. H. Michael (to Delaware Mills). USP 2 810 281, Oct. 22, 1957. (3700)

High bulk polyacrylonitrile yarn is produced by stretch breaking the filaments of two tows to form two slivers, heating only one sliver to shrink and relax the fibers, blending the two slivers together and twisting to form a yarn, and then heating in the presence of moisture to shrink the fibers from the untreated sliver.

MANUFACTURING SPUN YARN. Kanegafuchi Boseki KK. BP 775 387, May 22, 1957. Through BCIRA 37: 383 (1957). (3701)

Short staple fibers of polyvinyl alcohol, soluble in hot or cold water, are spun with cotton, silk, wool, or other artificial fibers and are subsequently removed by scouring.

MANUFACTURE OF TIRE CORD. NV Onderzoekingsinstituut Research. BP 775 711, May 29, 1957. Through BCIRA 37: 383 (1957). (3702)

Two thread elements are supplied under equal tension and velocity to a freely rotatable device, mounted above the twisting bobbin, that separates and tensions them before plying.

BONDING TIRE CORDS TO RUBBER. F. A. Jones, W. Cooper and M. Knights (to Dunlop Rubber Co. Ltd). BP 775 884, May 29, 1957. Through BCIRA 37: 396 (1957). (3703)

A copolymer of a conjugated diene methyl isopropenyl ketone, and vinyl pyridine, is used for bonding nylon and Terylene tire cords to rubber.

FABRIC PRODUCTION C

WARPING, SLASHING, YARN PREPARATION C 1

ELIMINATING THE ELECTROSTATIC CHARGING OF POLYETHYLENE TEREPHTHALATE FIBERS. Vereinigte Glanzstoff Fabriken AG. BP 754 054, Aug. 1, 1956. Through BCIRA 37: 354 (1957). (3704)

Fibers, yarns, and fabrics of Terylene are dressed with a neutral or acid triethanolamine salt of benzoic, salicylic, isophthalic or phthalic acid, alone or in conjunction with polyvinyl alcohol.

SIZING TEXTILE YARN. Gebrüder Sucker GmbH. BP 754 798, Aug. 15, 1956. Through BCIRA 37: 354 (1957). (3705)

The dry yarn is squeezed to expel air, immediately run through the size bath and squeezed again. The squeezing pressure may be different and the speeds of the squeezing rollers may be automatically controlled to maintain the tension of the yarn in the bath within predetermined limits.

PRESSURE ROLLERS FOR SIZING APPARATUS. Maschinenfabrik Rüti AG. BP 775 051, May 15, 1957. Through BCIRA 37: 385 (1957). (3706)

The roller has an outer sleeve so arranged as to resist bending when the core is bent; uneven squeezing is thus avoided.

ANTISTATIC AGENT. Vereinigte Glanzstoff Fabriken AG. BP 775 947, May 29, 1957. Through BCIRA 37: 385 (1957). (3707)

Polyamide, polyester, and polyacrylonitrile materials are treated with a solution containing the reaction product of an amine (e.g. diethylamine) and an amide (e.g. methylene-bis-chloropropionic acid amide).

TEXTILE SIZING COMPOSITION. J. J. Cramer and K. Narscius (to Wyandotte Chemicals Corp.). USP 2 811 462, Oct. 29, 1957. (3708)

Sizing composition consisting of unmodified corn or rice starch and from 1.5 to 15% by weight of a water-soluble salt of carboxymethylcellulose.

WARPING MACHINE TENSION DEVICE. H. M. Brown (to Clemson Agricultural College). USP 2 812 779, Nov. 12, 1957. (3709)

Device for automatically maintaining constant tension on yarn being unwound from a beam regardless of the diameter of the package on the beam.

PORTABLE YARN BONDING DEVICE. N. C. Chang and R. E. Langlois (to A. B. Carter, Inc.). USP 2 812 795, Nov. 12, 1957. (3710)

Device which eliminates the tying of knots by mechanically effecting a union of two yarns by means of an adhesive.

WEAVING C 2

PICKERS FOR OVER-PICK LOOMS. H. Nagenborg. BP 754 264, Aug. 8, 1956. Through BCIRA 37: 354 (1957). (3711)

The upper part of a raw-hide or leather picker is thickened towards the front of the loom and has, in this part, a curved slot for the picking strap so disposed that the strap pulls at the top of the picker without tilting it on its spindle. The picker has guide plates for the spindle that occupy practically all the cross-section of the upper portion of the picker, and also an impact plate completely surrounded by raw hide or leather.

WEFT-CUTTING MECHANISM FOR AUTOMATIC LOOMS. K. Sakamoto. BP 754 668, Aug. 8, 1956. Through BCIRA 37: 354 (1957). (3712)

In a device for controlling the outgoing weft end in a cop-change loom, a slide bar is used to protect the cutter against faulty timing. The bar is moved towards the lay under control from the weft feeler and in the other direction by the lay itself. The cutter is carried at one end of the bar and adjustable link mechanism connected to the feeler is carried at the other end the arrangement being such that the bar will yield if the cutter is struck by a shuttle before the bar is moved by the lay.

REPLENISHING MEANS FOR AUTOMATIC BOBBIN CHANGING LOOMS. Maschinenfabrik Rüti AG. BP 774 214, May 8, 1957. Through BCIRA 37: 385 (1957). (3713)

Magazine removably connected to the loom is provided with guiding means for a single row of bobbins stacked loosely one behind the other.

WEAVING PROCESS. Trikotfabriken J. Schiesser AG. BP 774 378, May 8, 1957. Through BCIRA 37: 385 (1957). (3714)

Successive traveling waves of shedding are formed in the warp threads and in the wave bulges of which shuttles are moved.

YARN CLAMP FOR WEFT YARN TRANSFER DEVICE IN A GRIPPER SHUTTLE LOOM. Sulzer Frères SA. BP 774 717, May 15, 1957. Through BCIRA 37: 386 (1957). (3715)

YARN CUTTER. Vereinigte Seidenwebereien AG. BP 775 067, May 15, 1957. Through BCIRA 37: 386 (1957). (3716)

The cutter has an electrical driving mechanism operated by a feeler that is displaced by entry of weft threads.

PICKER FASTENING MEANS. W. Greenwood. BP 775 413, May 22, 1957. Through BCIRA 37: 385 (1957). (3717)

The striker part is secured to the picker body in such a way that it does not become loose.

POWER LOOM. S. Queteschiner (Sweden). BP 775 785, May 29, 1957. Through BCIRA 37: 385 (1957). (3718)

The reed is stationary and the weft thread is moved through the shed during at least half, and preferably more than two-thirds, of a working period instead of the usual quarter.

HAND LOOM. E. Nadeau. USP 2 811 175, Oct. 29, 1957. (3719)

Friction let-off mechanism for loom made of light metal tubing.

LARGE CLOTH TAKE-UP ROLL. H. C. Mangum (to United Merchants & Manufacturers). USP 2 811 176, Oct. 29, 1957. (3720)

Both the warp beam and cloth roll are at the front of the loom so that a greater amount of cloth may be wound up before doffing.

CIRCULAR LOOM DRIVE. R. Jacob and B. Masson (to Societe d'Applications Generales d'Electricite & de Mecanique). USP 2 811 986, Nov. 5, 1957. (3721)

The shafts or heddle frames of a circular loom are driven by cams arranged in a horizontal plane concentric to the loom axis, making possible a transmission between the shaft and cam so that small inclinations of the cam produce the desired shaft lift.

FLOATING PICK SHEARING DEVICE FOR SINGLE PICK LOOMS. E. J. LeBlanc. USP 2 811 987, Nov. 5, 1957. (3722)

AUTOMATICALLY REMOVING LINT FROM A ROW OF LOOMS. C. deV. Miller and F. N. Becker (to American MonoRail Co.). USP 2 812 251, Nov. 5, 1957. (3723)

Lint removal apparatus consisting of a ceiling-suspended crane, a blower unit supported by the crane and moving with it over a row of looms, and an electrical system for controlling the movements of the crane and blower unit.

WARP LET-OFF DEVICE. K. Sakamoto (Japan). USP 2 812 780, Nov. 12, 1957. (3724)

Let-off device in which the speed of rotation of the beam depends on the decrease in the number of yarn layers as modified according to a theoretical curve.

STOP MOTION FOR JACQUARD LOOMS. C. W. Holt. USP 2 812 781, Nov. 12, 1957. (3725)

Means for automatically actuating the loom stop motion when the pattern cards in the jacquard mechanism become disarranged.

KNITTING C 3

PLUSH FABRICS. C. Lumpp (Germany). BP 754 550, Aug. 8, 1956. Through BCIRA 37: 355 (1957). (3726)

An interlock plush fabric, smooth on one side and having plush loops on the other, is made on a fine-ribbing or interlock knitting machine, the plush loops only being formed on the rib needles.

STOCKINGS FROM POLYAMIDE YARN DELUSTERED WITH TITANIUM DIOXIDE. NV Onderzoekingsinstituut Research. BP 774 966, May 15, 1957. Through BCIRA 37: 387 (1957). (3727)

The foot, or at least the heel, is formed from yarn containing carbon black.

KNIT FABRICS. G. W. Brooks (to Belmont Throwing Corp.). BP 775 688, May 29, 1957. Through BCIRA 37: 387 (1957). (3728)

Fabrics (e.g. hosiery) are knitted from a number of different colored, stretchable, polyamide or polyester yarns that are twisted, set, dyed, twisted, set, and untwisted.

STRETCH TOP FOR HALF HOSE. W. C. Elder and D. M. Elder. USP Reissue 24 384, Oct. 29, 1957. Original No. 2 799 151, July 16, 1957. (3729)

Ribbed elastic top for men's hose consists of a number of courses of stretch nylon and inelastic cotton yarn. The cotton is knitted at every wale and the nylon at selected or alternate wales and floated across the intervening wales.

REINFORCED KNIT FABRIC. H. K. West (to Dexdale Hosiery Mills). USP 2 809 510, Oct. 15, 1957. (3730)

Flat knitted selvage edged fabrics suitable for the reinforced infield area for undergarments are produced by controlling the traverse of two carriers so that their yarns are fed to opposite end groups of the needles. Due to overlap in the traverse, both yarns are fed to the intervening needles to form the reinforced infield area.

NYLON STRETCH YARNS AND HOSIERY. F. W. Silver (to Archer Mills). USP 2 810 949, Oct. 29, 1957. (3731)

Stretch full-fashioned hosiery is knit from a nylon stretch yarn prepared by presetting two nylon monofils, twisting one in a Z twist 40 turns per inch, twisting the other in an S twist 60 turns per inch, and plying both monofils with an end of 13/15 raw silk in a Z twist 15 turns per inch.

CIRCULAR HOSIERY MACHINE. E. A. Copeland (to Quality Hosiery Mills). USP 2 811 026, Oct. 29, 1957. (3732)

Attachment for changing the yarn being knit during the widened portion of the toe pocket so that the looper rounds may be knit with less expensive yarn.

YARN TENSIONING MEANS FOR WARP KNITTING MACHINES. J. Held (to Textile Machine Works). USP 2 811 027, Oct. 29, 1957. (3733)

FABRIC TAKE-UP DEVICE FOR WARP KNITTING MACHINES. F. Lambach and A. Lombardi (to Robert Reiner Inc.). USP 2 811 028, Oct. 29, 1957. (3734)

Take-up device which counteracts the tendency of the fabric to shrink crosswise causing a misformation of the margin stitches.

NON-RUN BARRIER FOR NYLON HOSIERY. P. E. Conner. USP 2 811 029, Oct. 29, 1957. (3735)

Vinyon non-run barrier yarn is knit into the stocking and heat bonded to the nylon at cross-over points during the pre-boarding operation.

CIRCULAR KNITTING MACHINE. F. E. Deans and C. H. Wainwright (to Bentley Engineering Co. Ltd). USP 2 812 649, Nov. 12, 1957. (3736)

Superimposed needle cylinder machine with only one bearing located between the cams and the sinker ring. This bearing, being in the vicinity of the open end of the needle cylinder, can be readily lubricated.

STRAIGHT BAR KNITTING APPARATUS. J. F. Lenglet (France). USP 2 812 650, Nov. 12, 1957. (3737)

Needle comb mechanism which engages the newly formed loops on which the workpiece is suspended to prevent the upward shifting of the workpiece during knitting.

CIRCULAR ARGYLE KNITTING MACHINE. H. S. Bridges (to Midway Hosiery Mills). USP 2 812 651, Nov. 12, 1957. (3738)

Auxiliary pattern drum for Argyle machine mounted on a vertical axis below the driving and clutch mechanisms and controlled step-by-step by a vertical pattern bar.

FABRICS C 4

CONFORMING BANDAGES. D. B. Sullivan and T. P. Davies (to Johnson & Johnson Ltd). BP 754 692, Aug. 8, 1956. Through BCIRA 37: 355 (1957). (3739)

Extensible bandaging material for keeping dressings in place on the body is composed of kinked yarns in open-mesh weave and the selvages are formed by folded-over margins in which the kinked yarns intermingle and interlock with those in adjacent portions of the fabric as the bandage is applied.

ELECTRICAL RESISTANCE MATS. M. H. Godden (to M. H. Godden (Cheltenham) Ltd). BP 774 306, May 8, 1957. Through BCIRA 37: 386 (1957). (3740)

Woven textile fabrics, e.g. of glass, with resistance wires, are described as surface-heating layers for aircraft surfaces.

CLOTH CONSTRUCTION. L. Stevens (to Fothergill & Harvey Ltd). BP 774 566, May 8, 1957. Through BCIRA 37: 386 (1957). (3741)

The weft is a monofilament ribbon of synthetic material, which, during weaving, becomes twisted and produces protuberances irregularly spaced over the surface of the cloth.

POROUS NONWOVEN BONDED FABRICS. Carl Freudenberg KG auf Akt. BP 774 790, May 15, 1957. Through BCIRA 37: 396 (1957). (3742)

Fiber fleeces are impregnated with rubber and thermoplastic resins.

METHOD OF MAKING CARPETS. A. Brookes and W. C. F. Swindell (to Brintons Ltd). BP 775 654, May 29, 1957. Through BCIRA 37: 386 (1957). (3743)

Hard twisted yarns are used for Axminster carpets, the yarns being sized before weaving and the setting effect subsequently destroyed to produce the effect of Wilton.

POLYVINYL ESTER COATING FOR SELF-ADHESIVE TAPE. P. L. Williams (to Adhesive Tapes Ltd). BP 775 693, May 29, 1957. Through BCIRA 37: 396 (1957). (3744)

MANUFACTURE OF FLOCK FABRICS. Etablissements Girond Frères. BP 775 732, May 29, 1957. Through BCIRA 37: 386 (1957). (3745)

Control of the cut pile fibers applied electrostatically is claimed.

TROUSER WAIST BAND. G. W. Robinson (to Drey Simpson & Co. Ltd). BP 775 782, May 29, 1957. Through BCIRA 37: 386 (1957). (3746)

Fabric having alternate zones with and without mohair pile.

POLYESTER COATED FABRICS. W. Abbotson, D. H. Coffey and R. Hurd (to Imperial Chemical Industries Ltd). BP 775 878 and 775 879, May 29, 1957. Through BCIRA 37: 396 (1957). (3747)

Polyester coated fabrics are valuable as light weight tarpaulins and sun blinds.

NON-SLIP ELASTIC WOVEN FABRIC. A. W. McMurray (to Ansonia Mills). USP 2 809 673, Oct. 15, 1957. (3748)

Non-slip one-way stretch fabric is composed of non-stretchable warp threads and covered and uncovered elastic weft threads. Portions of the uncovered weft threads are raised on one side of the fabric above the warp and covered weft threads to provide a friction surface.

NONWOVEN TEXTILE WEBS. F. D. Houghton (to American Viscose Corp.). USP 2 810 645, Oct. 22, 1957. (3749)

Coherent, strong water-laid webs are prepared by mixing synthetic fibers (e.g., regenerated cellulose) from 7/16 to one inch long with an aqueous alkaline medium containing as a dispersing agent a water-insoluble hydroxyethylcellulose. The mixture is acidified to precipitate the hydroxyethylcellulose upon the fiber surfaces and is fed to the screen of a paper-making machine to form a web of randomly intermingled fibers. Upon drying the finished web is made up of fibers bonded at their points of intersection by the hydroxyethylcellulose particles.

POLYACRYLONITRILE FIBER PAPER. W. M. Wooding and N. T. Woodberry (to American Cyanamid Co.). USP 2 810 646, Oct. 22, 1957. (3750)

Paper consisting of felted, rosin-sized cellulose fibers and/or felted, heat-bonded, rosin-sized, water-fibrillated, wet-spun filaments of paper-making length of polyacrylonitrile.

TUFTED PILE CARPETS. W. A. Rice (to Mohasco Industries). USP 2 810 950, Oct. 29, 1957. (3751)

A batt of intermingled fibers, with a thickness greater than one-fourth the overall thickness of the carpet, replaces the usual backing fabric. The pile yarns are easily inserted through the batt by a tufting machine because the fibers are merely interlaced or felted instead of woven.

COLLAR AND CUFF FABRIC. O. S. Lawton (to Phillips-Jones Corp.). USP 2 811 177, Oct. 29, 1957. (3752)

Multi-ply fabric for collars and cuffs in which the overall area, excluding the fold line, is so constructed that the tendency of the collar or cuff to crease in the undesired direction is resisted by the inherent tendency of the fabric to roll in the opposite direction.

NEEDLING TUFTED CARPETS. R. S. MacCaffray, Jr. (to C. H. Masland & Sons). USP 2 811 244, Oct. 29, 1957. (3753)

Yarn feed device for simplifying the differential feeding of pile yarn ends to provide a pattern repeat.

PILE FABRIC PACKAGING. R. A. Hill, J. Hertz and R. H. Niebling (to Sidney Blumenthal & Co.). USP 2 811 248, Oct. 29, 1957. (3754)

Rolling pile fabric easily into spiral form with evenly spaced layers by means of zipper type fasteners.

ASPHALT-BONDED GLASS FIBER MAT. W. G. Craig (to Lubrizol Corp.). USP 2 811 769, Nov. 5, 1957. (3755)

Roofing material prepared by forming a loosely piled mat of glass fiber strands of 1 to 6 inches in length, compacting by water treatment, spraying with asphalt, and heating to drive off the water and cause the asphalt to bond the strands at their points of contact.

NUBBY FABRIC FROM KINKED MONOFILAMENTS. L. Stevens (to Chicopee Manufacturing Corp.). USP 2 812 782, Nov. 12, 1957. (3756)

Nubby or bouclé type fabrics are woven from synthetic monofilaments of a flat or elliptical cross section which have a series of haphazardly angled and irregularly spaced twisted portions forming random kinks.

MACHINE FOR MAKING FILAMENT REINFORCED LAMINATED FABRICS. R. G. Estee, E. T. Bears, E. J. Berry and L. A. Sheeran (to Glas-Kraft, Inc.). USP 2 812 797, Nov. 12, 1957. (3757)

Machine for making a laminated fabric composed of two thin, pliable webs adhesively secured to each other and between which is positioned a layer of continuous length filaments.

ABSORBENT ELEMENT FOR CIGARETTE FILTERS. R. MacHenry (to American Viscose Corp.). USP 2 813 051, Nov. 12, 1957. (3758)

Fibrous absorbent material is prepared by forming a sliver of non-adhesive and potentially adhesive synthetic fibers (e.g. viscose rayon and Vinyon), activating the latter with a vaporized agent, and compressing to the desired size.

WATERPROOF PLASTICIZED FABRIC. T. A. Lancaster (to Plastic Film Corp.). USP 2 813 052, Nov. 12, 1957. (3759)

Waterproof fabric prepared by applying successive coatings of a film-forming resin to a knit or woven fabric.

FINISHING AND CHEMICAL PROCESSING D

CONTINUOUS APPARATUS FOR FLUID TREATMENT OF TEXTILES. H. H. Belcher (to Rodney Hunt Machine Co.). USP 2 811 351, Oct. 29, 1957. (3760)

Fabrics in rope form are moved through a fluid bath at high speed and under reduced tension by rotating the upper rolls at a surface speed exceeding the linear speed of the fabric passing over the roll and by having the arcs of the upper and lower rolls angularly related to provide an automatic, substantially frictionless feed.

CHEMICAL PROCESSES D 1

SILICONE WATERPROOFING COMPOSITION. Midland Silicones Ltd. BP 753 730, Aug. 1, 1956. Through BCIRA 37: 362 (1957). (3761)

IMPREGNATION OF TIRE CORDS WITH SYNTHETIC RESINS. J. W. Illingworth (to Dunlop Rubber Co. Ltd). BP 753 857, Aug. 1, 1956. Through BCIRA 37: 349 (1957). (3762)

Singles yarns are impregnated with a phenol, folded together, and the cord treated with an aldehyde and baked to produce the resin in situ. Such cords adhere to rubber much more effectively than untreated cords.

TEXTILE OILS. M. Elton and P. A. Winsor (to Shell Research Ltd). BP 753 749, Aug. 1, 1956. Through BCIRA 37: 354 (1957). (3763)

Emulsifiable compositions that impart "scroop" to yarns consist of a mineral oil, an oil-soluble naphtha-sulfonate, an oil-soluble, non-ionic emulsifier (e.g. a higher alcohol, glycol or glyceryl ester), and a nitrogenous emulsifier soluble in oil but not in water (e.g. a higher aliphatic amine or imidazoline). Three examples of the application of the oils to viscose and nylon knitting yarns are given.

EMBOSSING. H. Ewing and J. R. Wylde (to British Celanese Ltd). BP 774 096 and 774 097, May 8, 1957. Through BCIRA 37: 397 (1957). (3764)

Thermoplastic fabrics are embossed by pressure and heat from a small part of a rotating cylindrical patterned surface.

PRODUCTION OF METALLIZED FABRICS. Heberlein & Co. AG. BP 774 223 and 774 439, May 8, 1957. Through BCIRA 37: 396 (1957). (3765)

Fabrics with 25% interstices are treated with the vapor of a metal, particularly aluminum, in a high vacuum. Adhesion of the metal is improved by reducing the swelling properties of the fibers before exposure to the metal.

CONTROL OF GASEOUS MEDIA IN PRINTING AND CREASEPROOFING. W. K. Donaldson and D. Ainscough (to Tootal Broadhurst Lee Co. Ltd). BP 774 284, May 8, 1957. Through BCIRA 37: 396 (1957). (3766)

POROUS COATED CLOTH. H. Glatt. BP 774 326, May 8, 1957. Through BCIRA 37: 396 (1957). (3767)

Resin-coated rayon and cotton cloths for interlinings and ironing pad covers are described. The resin may contain a heat-reflecting pigment, e.g. aluminum powder.

FIREPROOFING FIBROUS MATERIALS. P. H. P. Valette (to Compagnie Francaise des Matieres Colorantes). BP 774 694, May 15, 1957. Through BCIRA 37: 397 (1957). (3768)

Textiles and other materials are impregnated with an aqueous solution obtained by dissolving the products of the action of ammonia on phosphonitrile chloride in water, and heated to render the phosphorus derivatives insoluble.

FLAMEPROOFING CELLULOSIC FABRICS. W. A. Reeves and J. D. Guthrie. USP 2 810 701, Oct. 22. 1957. (3769)

Flameproofing cellulose fabrics without increasing their stiffness by impregnation with an emulsion of water-soluble resin forming reactants consisting of methylolmelamine, urea, and tetrakis (hydroxymethyl) phosphonium chloride (THPC), and a dispersed powdered insoluble polymer of THPC and bromoform, ammonia, orthobromophenol, or methylolmelamine.

HOSIERY FINISHING APPARATUS. E. Bellmann. BP 774 797, May 15, 1957. Through BCIRA 37: 395 (1957). (3770)

The apparatus has a number of small treatment chambers, of a size to take one item, for dyeing, plasticizing, washing, and drying.

ANTISTATIC TREATMENT OF TEXTILES. Boehme Fettchemie GmbH. BP 775 976, May 29, 1957. Through BCIRA 37: 401 (1957). (3771)

Treatment, in laundering, with a washing agent and the product of reaction between an anion-active compound and a cation-active onium compound, other than a phosphonium compound.

PERMANENT ANTISTATIC FINISH FOR TEXTILES. S. Melamed (to Rohm & Haas Co.). USP 2 808 349, Oct. 1, 1957. (3772)

Durable antistatic finish for hydrophobic fabrics with a tendency to develop static when dry consists of certain polymeric quaternary ammonium compounds that may be cured to an insoluble condition by heating or prolonged aging.

SOIL RESISTANT PILE CARPETS. E. J. Cogovan and E. D. Friderici (to Mohasco Industries). USP 2 810 948, Oct. 29, 1957. (3773)

Soil resistant carpets are obtained by coating the exposed pile yarns with a dilute colloidal aqueous solution of a non-film forming resin, e.g., polyvinyl chloride, polyvinyl acetate, vinylchloride-vinylidene chloride copolymers, polystyrene, or styrene-butadiene copolymers.

FLAMEPROOFING CELLULOSE FABRICS. J. R. Costello (to Victor Chemical Works). USP 2 811 469, Oct. 29, 1957. (3774)

Flexible, permanently flameproofed cellulose fabrics are obtained by treating the fabric with a partial polymer of a dialkenyl monochloromethanephosphonate and curing the treated fabric at a temperature sufficient to cause further polymerization and attachment of the polymer to the fabric fibers.

MOTHPROOFING COMPOSITION. T. L. Cunningham. USP 2 811 477, Oct. 29, 1957. (3775)

Liquid mothproofing composition consisting of a water-insoluble salt, a solid fatty acid glyceride, DDT or methoxychlor, a hydrocarbon solvent, and a dispersing agent.

DYEING AND PRINTING D 2

TRANSFER PRINTING. STAR, Stampa Tessuti Artistici SpA. BP 754 233, Aug. 8, 1956. Through BCIRA 37: 362 (1957). (3776)

In order to render the dyes easily transferable from the carrier to the fabric, the carrier is coated with a solution of sodium palmitate, sulfonated castor oil, and zinc stearate in water. The dyes are printed on the carrier on an intaglio machine, a preferred vehicle consisting of toluene, an Albertol resin, paraffin oil, and sodium polysulforicinoleate.

PADDERS OR FOULARDS. J. Dungler (France). BP 763 654, Dec. 12, 1956. Through BCIRA 37: 395 (1957). (3777)

The end plates extend to a substantial height above the rollers and side walls are provided, the lower edges of which engage with the cylindrical surfaces of the rollers in a fluid-tight manner.

PIGMENT PRINTING AND PIGMENT PADDING. H. Kleiner and W. Lehmann (to Farbenfabriken Bayer AG). BP 774 101, May 8, 1957. Through BCIRA 37: 395 (1957). (3778)

Pigments are fixed in textile printing by insolubilizing polymers containing amino groups, particularly polyureas, by heat.

DYEING OR PRINTING POLYACRYLONITRILES. Badische Anilin- & Soda-Fabrik AG. BP 774 320, May 8, 1957. Through BCIRA 37: 395 (1957). (3779)

Pretreatment in a bath containing cuprous ions with an acid is described.

FINISHING DYEINGS OR PRINTS OF VAT DYESTUFFS. Ciba Ltd. BP 774 518, May 8, 1957. Through BCIRA 37: 394 (1957). (3780)

Treatment with aqueous solutions of sulfonic acid amides, during the oxidation of the leuco compound, is described as preferable to soaping.

DYEING CELLULOSE ACETATE. G. D. Sutton and G. T. Cronshaw (to T. E. Marchington & Co. Ltd). BP 774 537, May 8, 1957. Through BCIRA 37: 395 (1957). (3781)

Anionic metal-complex dyes, such as the Cibalan dyes, can be used to dye or print cellulose acetate in the presence of swelling agents.

DYEING AND PRINTING POLYACRYLONITRILES. Ciba Ltd. BP 775 766, May 29, 1957. Through BCIRA 37: 395 (1957). (3782)

Dyestuffs of the triphenyl-methane series, free from sulfonic acid groups and containing secondary phenylamino groups para to the central carbon atom, are used (violet, blue, and green shades).

VAT DYEING AND PRINTING OF CELLULOSE MATERIALS. J. F. Steimlé. BP 775 820, May 29, 1957. Through BCIRA 37: 394 (1957). (3783)

A powdered metal that develops hydrogen in a concentrated alkali solution (e.g. zinc dust) is used in place of a water-soluble reducing agent.

DECALCOMANIA PRINTING OF FABRICS. G. J. L. Wooldrik (Netherlands). USP 2 810 673, Oct. 22, 1957. (3784)

Multicolor designs are printed on fabrics by first printing the design on paper using a fatty printing ink and transferring the design to a fabric treated with an amount of synthetic resin sufficient only to coat the threads without filling the meshes.

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